UNITED STATES BANKRUPTCY COURT
FOR THE WESTERN DISTRICT OF NORTH CAROLINA
Charlotte Division

IN RE: GARLOCK SEALING TECHNOLOGIES LLC, et al., Debtors.[1]	Case No. 10-BK-31607 Chapter 11 Jointly Administered

APPENDIX I

DEBTORS' RESPONSE TO PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW SUBMITTED BY THE OFFICIAL COMMITTEE OF ASBESTOS PERSONAL INJURY CLAIMANTS FOR THE ESTIMATION OF MESOTHELIOMA CLAIMS

[FILED UNDER SEAL]

The Debtors, by and through their undersigned counsel, hereby submit this Response to the Committee's Proposed Findings of Fact and Conclusions of Law [Docket No. 3201], and the Future Claimants' Representative's joinder thereto.[2]

Debtors object to each and every one of the Committee's Proposed Findings of Fact and Conclusions of Law, for all the reasons set forth in their pre-trial brief, their two post-trial briefs, and their *Daubert* motions and associated responses. To assist the Court, Debtors provide this commentary on the Committee's proposed findings and conclusions, which are contrary to facts of record and the law, and in many cases misstate the facts presented at the estimation trial. The Committee's proposed findings and conclusions are in bold, and Debtors' commentary is in plain

[1] The Debtors are Garlock Sealing Technologies LLC; Garrison Litigation Management Group, Ltd.; and The Anchor Packing Company.

[2] The FCR joins with paragraphs 17-20 and 121-132 of the Committee's findings of fact and paragraphs 203- 205 and 208 of the conclusions of law, which relate to the testimony of his expert witnesses.

type. Debtors' citations are in parentheticals in the body of their commentary; all footnotes are the Committee's.

Finally, Debtors refer the Court once again to their Proposed Findings of Fact and Conclusions of Law [Docket No. 3207].

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This matter comes before the Court on the estimation in the aggregate of pending and future mesothelioma claims against Garlock Sealing Technologies, LLC ("Garlock"). The Court has reviewed all of the briefs and supporting materials filed by Garlock, its parent company Coltec Industries, Inc. ("Coltec"), the Official Committee of Asbestos Personal Injury Claimants (the "Committee"), and Joseph W. Grier, III, as the legal representative for the future asbestos claimants (the "FCR"); has heard oral arguments of counsel and the testimony of fact and expert witnesses who testified during the seventeen-day estimation hearing held July 22, 2013 to August 22, 2013 (the "Hearing"); and has considered the exhibits and other materials admitted into evidence or otherwise submitted for consideration by the Court. After due deliberation, the Court hereby makes the following Findings of Fact and Conclusions of Law:[3]

I. FINDINGS OF FACT

A. The Evidentiary Record

1. The Court heard live testimony from Charles Wasson, David Garabrant, Thomas Sporn, Larry Liukonen, Frederick Boelter, John Henshaw, David Weill, Lester Brickman, Joseph Radecki, Richard Magee, William Longo, James Shoemaker, Philip Templin, Arnold Brody, Carl Brodkin, Laura Welch, John Turlik, Jorge Gallardo-García, Charles Bates, Paul Hanly, David McClain, Joseph Rice, James Patton, Mark Peterson, Francine Rabinovitz, James Heckman, Elizabeth Anderson, Lambertus Hesselink, and David Glaspy.

2. Pursuant to a stipulated order, the expert reports (both initial and rebuttal reports) of the parties' respective financial experts (Karl N. Snow for Garlock, Kenneth W.

[3] Any matter set forth below as a finding of fact that would more properly be considered a conclusion of law is hereby adopted as such, and vice versa.

McGraw for the Committee, and Joseph J. Radecki for the FCR) have been admitted into evidence, along with the depositions of those witnesses. Stipulation and Order Regarding Testimony of Certain Financial Experts, entered on Sept. 17, 2013 [Dkt. No. 3125].

3. The testimony of the following witnesses has been presented to the Court by designations of depositions or prior court testimony: David Durham, Walter Overstreet, Roy Whittaker, Jimmy Gene Ward, Harry Joe Hyder, Lester Borgen, Ronald Isaacs, Elmer Royer, Robert Maney, Robert Hill, Theodore Cichocki, Jack McNutt, James Heffron, Harold Seltzer, John Sunday, Charles Oxley, James Prange, Bernard Duman, Simon Greenstone 30(b)(6) (Jeffrey Simon), Paul Grant, Elizabeth Barry, Christopher Drake, Brian Henzel, Michael Shepard, Gary Kendall, Belluck & Fox 30(b)(6) (Joseph Belluck), John Dement, Peter Infante, Rust Consulting 30(b)(6) (Rebecca Blake), Rust Consulting 30(b)(6) (Justin Parks), Williams Kherkher 30(b)(6) (Troy Chandler), Melissa Ferrell, Waters & Kraus 30(b)(6) (Peter Kraus), Mark Iola, Shein Law Center 30(b)(6) (Benjamin Shein), Robert Phillips, Tim Hennessy, Richard Magee, Garlock 30(b)(6) (James Heffron), Garlock 30(b)(6) (Tim Hennessy), Garlock 30(b)(6) (Richard Magee), The David Law Firm 30(b)(6) (Stephen Cooper), Ernest Schaub, Tim O'Reilly, William Mahoney, Jeffrey Simon, Samantha Flores, Charles Finley, Julie Strange, Raymond Harris, Roger R. Beckett, Joseph Radecki, and Karl Snow.

4. Garlock has also offered the expert report and deposition testimony of George L. Priest, an expert witness, arguing that, although he sat for deposition despite illness, the illness rendered him unavailable to attend the trial. Professor Priest's report,

like that of the other experts, constitutes inadmissible hearsay,[4] and Garlock has not made a sufficient showing of unavailability to make it proper to admit his deposition transcript in lieu of live testimony. In the absence of in-person testimony, moreover, Professor Priest's opinions would not be sufficiently helpful to the Court as trier of fact to warrant admitting his report or deposition over objection. *See* Fed. R. Evid. 702; *see also Bell v. CSX Transp., Inc.*, 2002 WL 34714566, at *3 (E.D. Mich. Apr. 4, 2001) (excluding opinions of expert asserted to have been unavailable for trial).

RESPONSE: Debtors have offered Professor Priest's report on the same basis as other expert reports, under Federal Rule of Evidence 104(a) as relevant to Debtors' *Daubert* motion, and it should be admitted for that purpose. With respect to Professor Priest's deposition, Federal Rule of Civil Procedure 32, applicable in this proceeding, provides that a deposition may be used against a party present at the deposition "for any purpose" if "the witness cannot attend or testify because of age, illness, infirmity, or imprisonment." Professor Priest had major surgery after his deposition but before trial, and therefore could not attend trial. Therefore, under Rule 32, his deposition is admissible against the Committee and FCR. The case the Committee cites is completely inapposite, as it deals with a doctor assertedly unavailable because of her busy schedule, and the case did not involve the portion of Rule 32 upon which Debtors rely, having to do with illness or infirmity. *See Bell*, 2002 WL 34714566, at *2-3.

5. The parties have submitted a large amount of documentary evidence. In addition to exhibits introduced or referred to at the hearing, Garlock, the Committee and

[4] At the Hearing, the parties generally agreed that expert reports constitute hearsay that is inadmissible as substantive evidence and may be considered only for the determination of preliminary evidentiary questions pursuant to Fed. R. Evid. 104(a).

the FCR have each offered large categories of documents gathered in discovery in this proceeding.

6. The following discussion of the testimony given by various witnesses who took the stand at the Hearing, and of the financial experts who testified by deposition, is not meant as a comprehensive restatement of their testimony, but rather as a high-level summary intended to memorialize the identity of each witness, the main subjects he or she addressed, and key points emerging from the testimony. Further particulars of the testimony are cited in connection with the specific proposed findings set out in a later section of these findings.

(i) Experts on Estimation and Related Financial and Economic Topics

Called by Garlock

7. Charles E. Bates, Ph.D. an economist and an econometrician,[5] is the co-founder of the consulting firm Bates White LLC ("Bates White"). Dr. Bates was admitted to testify as an expert in economics, econometrics, and asbestos-claim estimation.[6] Garlock asked Dr. Bates to analyze the relationship between Garlock's settlements and its "legal liability," as defined by Garlock's counsel; to forecast Garlock's liability as thus defined for pending and future unknown mesothelioma claims; and to determine whether Garlock's proposed funding would be sufficient under its proposed plan of reorganization.[7] Recalled by Garlock as a rebuttal witness, Dr. Bates gave a critique of the estimates offered by Drs. Rabinovitz and Peterson.

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[5] Hr'g Tr. 2706:17-2707:4, Aug. 2, 2013 (Bates).

[6] *Id.* at 2734:14-16, 22-23.

[7] *Id.* at 2704:19-2705:4, 2705:6-9.

8. Dr. Bates opined that Garlock's historical settlements amounted to multiples of its "legal liability," because it settled cases, not because of any prospect of being found liable, but to avoid greater costs of defense.[8] On stated assumptions, he estimated Garlock's "legal liability" for present mesothelioma claims as less than $25 million and for future mesothelioma claims as less than $100 million.[9] By comparison to these estimates, Dr. Bates expressed confidence that the funding Garlock proposes for its plan (assertedly, $270 million) would be adequate (and indeed, that claimants would uniformly choose the "Settlement Option" rather than the "Litigation Option" under that plan).[10]

RESPONSE: This proposed finding does not fairly or accurately summarize Dr. Bates's opinions. Dr. Bates's first opinion was that Garlock's settlements were multiples of its legal liability because defendants' avoidable costs are higher than plaintiffs' avoidable costs, which leads to settlements greater than expected liability when expected liability is lower than avoidable costs. (Tr. 2747:2-2748:21 (Bates)). Dr. Bates generated his hypothesis using the well-accepted Posner model of the relationship between expected liability and settlements, and tested his hypothesis by determining that the vast majority of Garlock's settlements did not vary by age, and therefore were not driven by expected liability.

The Committee does not accurately summarize the results of this test. The test did not show that expected liability played no role in Garlock's settlements, but rather that the 95% of settlements less than $200,000 demonstrated no detectable likelihood of plaintiff success, while the remaining five percent of cases demonstrated a plaintiff likelihood of success of 17% (as well

[8] *Id.* at 2705:6-9, 2735:8-14, 2760:12-21.

[9] Hr'g Tr. 2921:5-19, 2974:5-9, Aug. 5, 2013 (Bates).

[10] Hr'g Tr. 2833:23-25, 2846:13-17, 2850:19-22, Aug. 2, 2013 (Bates).

as a significant cost avoidance component). (Bates Demonstrative Slides at 30 (GST-8005), Tr. 2759:16-2763:20 (Bates)).

With respect to Dr. Bates's opinion about Garlock's legal liability, the Committee fails to note that the "stated assumptions" were the pro-claimant assumptions that (a) any claimant who identifies contact with Garlock products would have the opportunity to proceed to trial and final judgment, and (b) would not be barred from presenting his causation evidence under *Daubert* or similar rules, as well as (c) the uncontroversial assumption (restating applicable discovery rules) that the finder of fact would have access to all exposure information known or reasonably knowable by the plaintiff or his counsel. (Tr. 2770:21-2773:2 (Bates)). The first and second assumptions are counterfactual, as Debtors demonstrated at trial, because not all claimants who identify contact would be entitled to a trial or to present their causation evidence. *See, e.g.*, *Moeller v. Garlock Sealing Technologies, LLC*, 660 F.3d 950, 955 (6th Cir. 2011); *Wannall v. Honeywell Int'l, Inc.*, 2013 U.S. Dist. LEXIS 68523, at *50-53 (D.D.C. May 14, 2013). Debtors nevertheless gave Dr. Bates these pro-claimant assumptions so that Dr. Bates's estimate would provide an upper bound that the Court could safely adopt as its estimate in this case. Under these pro-claimant assumptions, Dr. Bates determined that Garlock's liability for pending and future mesothelioma claims is "significantly less" than $125 million, for reasons explained in Debtors' briefs. (Tr. 2774:4-16 (Bates)).

Finally, Dr. Bates did not simply "express confidence" that the funding proposed in Debtors' plan would be sufficient to resolve pending and future mesothelioma claims. Dr. Bates quantified the Plan's impact on Garlock's avoidable defense costs and hence the settlement calculus under the Posner model, and thus proved—not assumed—that claimants would accept lower settlements. (Tr. 2835:21-2837:7 (Bates)). He thus proved that it would be in claimants'

economic best interest to accept the settlements offered under the Plan. He also determined that this would leave approximately $56 million for contingencies and trust administration. (Tr. 2848:24-2851:8 (Bates)).

9. The express assumptions underlying Dr. Bates' "legal liability" estimate are that (1) all claims against Garlock would be litigated to conclusion against it and all other responsible entities, (2) the trial court would admit all evidence presented by the litigants on the issue of causation, rather than excluding any such evidence under *Daubert* or similar limitations, and (3) all exposure evidence known or reasonably available to the plaintiff and plaintiff's counsel would be presented.[11] His analysis ignores the massive defense costs that adopting trial, rather than consensual resolutions, as the mode of valuing claims would entail.[12]

RESPONSE: The Committee misstates Dr. Bates's assumptions, as well as the nature and purpose of Dr. Bates's estimate. Debtors asked Dr. Bates to determine expected judgments against Garlock not because all claims against Garlock *will* be tried, but rather because that is what the estimation cases where the debtor disputes liability mandate. Because state law governs the allowance of claims under the Bankruptcy Code, 11 U.S.C. § 502(b)(1), the estimation cases instruct the Court to determine the total potential damages, the share of those damages that the debtor might be required to bear, and the likelihood of the plaintiff succeeding in carrying his burden of proof. *See, e.g.*, *In re Ralph Lauren Womenswear*, 197 B.R. 771, 775 (Bankr.

[11] *Id*. at 2771:7-2772:3.

[12] In Garlock's actual experience, defense costs fluctuated in the range of 25 percent of its total asbestos-related expenditures in the period 2003-2010. *See* ACC-159. In the five years preceding its bankruptcy, for instance, Garlock spent roughly $140 million in defense costs. See FCR-36 (chart summarizing defense costs). Of course, that level of expense, was in the context of a claims management approach in which Garlock tried only a trivial percentage of the claims against it, settling the bulk of them and dismissing without payment those unsupported by product exposure evidence. Hr'g Tr. 2918:22-2919:4, Aug. 5, 2013 (Bates).

S.D.N.Y. 1996) ("The estimated value of a claim is . . . the amount of the claim diminished by [the] probability that it may be sustainable only in part or not at all." (quoting *In re Windsor Plumbing Supply Co., Inc.* 170 B.R. 503, 521 (Bankr. E.D.N.Y. 1994) (second alteration in original))); *In re Adelphia Communications Corp.*, 368 B.R. 140, 279 (Bankr. S.D.N.Y. 2007) (same); *In re Farley*, 146 B.R. at 750-53; *In re Continental Airlines Corp.*, 64 B.R. 858, 860-61 (Bankr. S.D. Tex. 1986) (estimating personal injury claims at zero because court determined claimants had no likelihood of success)), *aff'd in part, rev'd in part*, 901 F.2d 1259 (5th Cir. 1990); *In re Windsor Plumbing Supply*, 170 B.R. at 524, 528, 531, 536-37; *In re Aspen Limousine Services, Inc.*, 193 B.R. 325, 337-39 (D. Colo. 1996).

Dr. Bates did not "assume that all claims against Garlock would be litigated to conclusion against it and all other responsible entities," but rather, as the estimation cases mandate, determined what the result would be *if* the claims were litigated to conclusion. That is the definition of "allowed claims" under the Code. Dr. Bates did so under the highly claimant-favorable assumptions noted above. The Committee and FCR, by contrast, attempted to use Garlock's settlements as a proxy for the facts the estimation cases require the Court to estimate, which failed because Debtors showed that Garlock's settlements were driven by defense costs and non-disclosure of evidence, not by the merit of claims.

Dr. Bates, like all parties, recognized that significant savings in transaction costs can be achieved through settlement rather than trial, such that pending and future claims are likely to be resolved through settlement. Far from "ignoring" the impact of defense costs, this was the core element of Dr. Bates's opinion that Garlock's settlements exceeded its legal liability by multiples. (Tr. 2747:2-2748:21 (Bates)). Indeed, the Committee's proposed finding, by admitting

"massive defense costs," is a tacit admission of Dr. Bates's key point: that Garlock settled cases in order to avoid those costs, not because the cases against it generally had merit.

But unlike Drs. Rabinovitz and Peterson, who only projected settlements in the tort system, Dr. Bates projected settlements under a variety of scenarios, including under Debtors' Plan; under an information regime where claimants are required to disclose their Trust claims; and (counterfactually) in the tort system, taking account of the impact that $30 billion in Trust funding would have had on Garlock's settlements. (Tr. 2705:16-22, 2833:14-25, 2837:8-25, 4801:7-4803:5 (Bates)).

The Court should not accept the Committee's attempt to discredit Dr. Bates by misrepresenting that he assumed all cases will be tried.

10. Dr. Bates described an elaborate series of steps by which he purported to value separately each pending and future claim. Using information gleaned from press accounts of some 367 verdicts won by prevailing plaintiffs (mostly in cases not involving Garlock), he derived assumptions about the total amount of damages that would be awarded to mesothelioma claimants prevailing against any defendant at trial.[13] He then applied a series of assumptions and conclusions that taken together, exonerated Garlock of fully 99 percent of the aggregate liability that he calculated would result from trying all of the claims to conclusion, ignoring the defense costs that trials would impose.[14]

RESPONSE: For the reasons discussed above, Dr. Bates did not "ignor[e] the defense costs that trials would impose." He took defense costs into account at every stage of his analysis, as they were a crucial part of his opinions.

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[13] Hr'g Tr. 3908:7-3909:3, Aug. 8, 2013 (Peterson).

[14] *Id*. at 3909:11-3912:11; *see also* Hr'g Tr. 2980:21-25, Aug. 5, 2013 (Bates).

Also, the Committee once again misrepresents the nature of Dr. Bates's estimate. First, it does not accurately describe how Dr. Bates calculated the total damages that plaintiffs might receive if claims were tried. In addition to compiling all publicly available mesothelioma plaintiff verdicts, Dr. Bates used a model of economic damages to estimate those damages for each claimant, on the basis of extensive data gathered through the PIQ process; used the publicly available verdicts to estimate non-economic damages; confirmed the reliability of that data using 1200 publicly reported wrongful death verdicts; and used a regression to correct for known selection bias in the observed verdicts. (Tr. 2782:3-2784:2, 2786:18-2787:20, 4808:1-13 (Bates)).

Dr. Bates then did not "exonerate Garlock of fully 99 percent of the aggregate liability," as the Committee would have it. Rather, he determined what share of a claimant's damages Garlock could potentially be held liable for under state law, as well as the likelihood of the claimant carrying his burden of proof and becoming legally entitled to collect those damages. This is the analysis mandated by the estimation cases to determine the allowed amount of claims under applicable law, *see supra*, not an "exoneration" of Garlock.

11. In addressing pending claims, Dr. Bates excluded approximately 33 percent of the claims that Garlock's affiliate and co-debtor, Garrison Litigation Management Group Ltd. ("Garrison") recorded as mesothelioma claims in the historical claims database that it maintained for Garlock (the "Garrison Database").[15] His rationale for doing so was that some responses given by the holders of those claims to questionnaires issued by Garlock in this proceeding showed that the excluded claims are not for mesothelioma or

[15] Hr'g Tr. 2926:25-2927:7, Aug. 5, 2013 (Bates).

have been withdrawn.[16] Dr. Bates valued the remaining pending claims by applying a regression analysis that varied the result according to the state in which the claim was filed, the claimant's age at the time of filing, and his or her life status (*i.e.*, living or dead) at that time.[17] Dr. Bates then assigned a zero value for those claims for which Bates White's review of the questionnaire responses and associated materials indicated that the claimants did not assert any contact with Garlock products.[18] For projected future claims, his regression analysis employed the state of filing as the sole variable.[19] For both pending and future claims, Dr. Bates made the assumption that claimants would win no more than 8 percent (and probably less) of trials against Garlock, because that was the "win rate" of claimants who went to verdict against Garlock in the 1990s, when insulation manufacturers were joined in the actions.[20] Dr. Bates also opined that Garlock would be responsible for just 1/36th of the few verdicts that would be rendered against it.[21]

RESPONSE: This proposed finding of fact is replete with errors.

First, Dr. Bates did not "exclude" any claims. Rather, he did not include in his pending claims estimate those claims where the claimant or his attorney, in response to this Court's discovery orders, stated they did not have a mesothelioma claim against the Debtors. (Tr. 2632:23-2634:4 (Gallardo-Garcia)). The Committee fails to note that the largest category of such responses were claims that had already been dismissed, in addition to claims that were

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[16] Hr'g Tr. 2633:8-2634:1, Aug. 2, 2013 (Gallardo-García).

[17] Hr'g Tr. 2927:8-13, Aug. 5, 2013 (Bates).

[18] *Id.* at 2928:4-19.

[19] *Id*. at 2975:3-10.

[20] *Id*. at 2956:10-23, 2975:11-14; *see also* Hr'g Tr. 3911:24-3912:8, Aug. 8, 2013 (Peterson).

[21] Hr'g Tr. 2936:18-25, Aug. 5, 2013 (Bates); *see also* Hr'g Tr. 2796:5-17, Aug. 2, 2013 (Bates).

withdrawn or where the claimant did not have mesothelioma. (Tr. 4685:20-4686:16 (Gallardo-Garcia)).

Second, the Committee does not fairly portray the regression analysis that Dr. Bates performed to determine total compensatory damages. Dr. Bates testified that there was known selection bias in the observed plaintiff verdicts because those plaintiffs were younger, in higher value jurisdictions, and more likely to be alive than the average claimant—all factors that increased those verdicts. (Tr. 2780:22-2781:18, 2785:17-2789:1 (Bates)). Thus, to value average claims, he had to apply a regression to correct for this selection bias. (*Id.*). For future claims, where actual data cannot yet be observed, Dr. Bates used probability to estimate the likelihood that, for example, future claimants would be alive or dead at the time the claim is filed. (Tr. 2975:3-10 (Bates)).

Third, the Committee does not fairly describe how Dr. Bates determined claimants' likelihood of success. Dr. Bates used Garlock's verdict history from the 1990s because that best characterized claimants' win rate when exposure information is disclosed—not because that was when "insulation manufacturers were joined in the actions." (Tr. 2810:16-2811:2 (Bates)). But Dr. Bates then tested that hypothesis by determining the likelihood of success implied by Garlock's recent settlement history, which showed that under the Posner model, the average likelihood of success of a mesothelioma claim against Garlock is on the order of one percent, which confirmed his hypothesis. (Tr. 2812:2-2813:5 (Bates)). The Committee and FCR did not challenge Dr. Bates's test of his likelihood of success hypothesis.

Finally, the Committee's statement that Dr. Bates "opined that Garlock would be responsible for just 1/36th of the few verdicts that would be rendered against it"—implying that Dr. Bates assumed several liability in all cases—is a plain misrepresentation. Dr. Bates testified

clearly and unequivocally, on at least five occasions, that he applied the liability allocation rules under applicable state law, and also performed sensitivity tests where he assumed all jurisdictions were joint and several, and another where he assumed all jurisdictions had several liability. (Tr. 2779:8-15, 2789:2-2789:5, 2802:14-2806:8, 2822:9-2823:10, 2932:3-2933:18, 2949:15-25 (Bates)).

12. In constructing the future stream of Garlock's "legal liabilities," Dr. Bates relied on the "Nicholson-KPMG-Bates White" epidemiological prediction of the incidence of mesothelioma in the United States.[22] This approach to forecasting the number and timing of future diagnoses of mesothelioma to be made in the United States derives from a famous study by Dr. William Nicholson, but incorporates adjustments to that study by a consulting group at KPMG (of which Dr. Bates formerly was a member) and further adjustments by Bates White itself.[23] The Bates White adjustment treats roughly one-third of future mesothelioma incidence as having no connection to asbestos, but instead as "idiopathic" in origin.[24] In translating his forecasted stream of Garlock liabilities to net present value, Dr. Bates applied an inflation adjustment of 2.5 percent per annum and discounted the resulting figures at 5.575 percent, which he termed a "risk free rate" based on the Congressional Budget Office's long-term assumptions about inflation and discounting.[25]

RESPONSE: This proposed finding does not accurately portray the incidence model that Dr. Bates used. Dr. Bates's model incorporates thirty years of data and knowledge that were not

[22] Hr'g Tr. 2720:4-7, 2818:15-18, Aug. 2, 2013 (Bates).

[23] Hr'g Tr. 3890:21-3891:5, 3912:23-3913:5, Aug. 8, 2013 (Peterson); Hr'g Tr. 2720:24-2721:7, Aug. 2, 2013 (Bates).

[24] Hr'g Tr. 3913:9-3914:5, Aug. 8, 2013 (Peterson).

[25] Hr'g Tr. 2774:17-2775:3, Aug. 2, 2013 (Bates).

available to Dr. Nicholson when he published his paper in 1982. Dr. Nicholson only attempted to predict the incidence of mesothelioma arising from certain industries and occupations ("occupational incidence"), not nationwide incidence of mesothelioma. This fact is explicitly noted in Dr. Nicholson's paper. (Nicholson, William J., et. al., *Occupational Exposure to Asbestos: Population at Risk and Projected Mortality – 1980-2030*, American Journal of Industrial Medicine 259, 282 (1982) ("Nicholson Paper") (GST-1311)). Dr. Rabinovitz made this point when she was retained by a debtor in the *ASARCO* case, where she called comparison of Nicholson to the National Cancer Institute's total SEER data (which measures nationwide incidence) "misleading." (Expert Rebuttal Report of Dr. Francine F. Rabinovitz, *In re ASARCO LLC* (June 27, 2007) (GST-6587) at 10).

Dr. Bates's model, by contrast, does model nationwide incidence of mesothelioma, as composed of occupational incidence, incidence related to non-occupational exposure to asbestos, and background incidence unrelated to asbestos exposure. It is thus far broader than Dr. Nicholson's original model. Furthermore, the existence of some level of background incidence unrelated to asbestos exposure is well accepted, as Dr. Garabrant, the only epidemiologist who testified at trial, established. (Tr. 245:12-20 (Garabrant); *see also* Tr. 308:11-309:23 (Garabrant) (summarizing extensive epidemiological literature on this subject)).

Dr. Bates's model does not *assume* any particular level of background incidence, but rather *finds* the best fit of the asbestos-related and background curves to the observed SEER data. (Tr. 2726:17-21 (Bates)). Thus, his model is empirically confirmed and comprehensive. The level of background incidence is a conclusion of Dr. Bates's model, not an assumption he makes. Dr. Bates then sensibly used the asbestos-related curve to estimate the number of future individuals who would allege contact with Garlock's products. (Tr. 2815:15-2818:14 (Bates)).

Neither the Committee nor FCR attacked Dr. Bates's model, and their false insinuations that Dr. Bates assumed an "idiopathic defense" to eliminate claims should be rejected.

With respect to the discount rate, it was not Dr. Bates who "termed" his rate a risk free rate, but rather the CBO whose report Dr. Bates used, and which the FCR's financial expert Mr. Radecki acknowledged is "a source that's considered objective and nonpartisan." (Tr. 1347:19-23 (Radecki)). Dr. Bates drew both his inflation rate and nominal risk free rate from the same CBO publication, (Tr. 2774:17-2776:2, 4786:11-4787:6 (Bates)), and thus was the only expert in this case who used internally consistent inflation and discount rates. As described below, Drs. Rabinovitz and Peterson used inflation and risk free rates drawn from different sources, which resulted in inconsistency and error. Finally, Dr. Bates's source is the same source relied upon by Dr. Rabinovitz in numerous previous engagements. (Rabinovitz Report, Owens Corning (Oct. 15, 2004) at 15 n.16 (GST-6592); Rabinovitz Report, Fibreboard (October 15, 2004) at 16 n. 16 (GST-6591); Rabinovitz Report, NARCO (April 24, 2006) at 12 (GST-6590) (real discount rate 3%); Rabinovitz Report, ASARCO (February 28, 2007) at 13 (GST-6585) (real discount rate 3%)).

13. Dr. Bates acknowledged that no court has ever adopted his estimation approach[26] and that this approach has only been proposed in one other case—the recent estimation conducted in *Bondex*, where Judge Fitzgerald rejected it.[27] Although his estimate was geared to determining what Garlock would owe if claims against it were tried under certain conditions, Dr. Bates admitted that less than one percent of Garlock's cases went to verdict, and that verdicts are neither random nor representative.[28] Dr. Bates

[26] Hr'g Tr. 2992:2-11, Aug. 5, 2013 (Bates).

[27] *Id.* at 2875:13-2876:18.

[28] *Id.* at 2918:15-2919:4, 2920:20-22.

advocated the idea that, in estimation, the bankruptcy court should substitute an "alternative information regime" for the tort system as it actually exists.[29] Dr. Bates, however, did not rely on any of Garlock's medical or scientific defenses in reaching his conclusions.[30]

RESPONSE: The Committee's proposed finding misstates the law and the facts. As the Court recognized in its Order for Estimation of Mesothelioma Claims (the "Estimation Order") (Docket No. 2102), a merits-based approach has been proposed in numerous previous asbestos bankruptcy cases where the debtor disputed its liability for claims. Estimation Order ¶ 17. None of those courts ultimately used that approach because asbestos claimants agreed to a settlement before the court made a decision, which has not happened here. The Committee and FCR's settlement-based approach has been used only where the debtor and claimants had agreed to a settlement. *Id.* ¶¶ 6, 15. Dr. Bates testified, consistent with this history, that in previous asbestos bankruptcy cases where he has been involved, "we've not been in a position of trying to distinguish between what was cost avoidance versus liability in matters prior to this time." (Tr. 2992:7-9 (Bates)).

It is not true that the merits-based approach Debtors offered in this case was the approach Judge Fitzgerald rejected in *Bondex*. In that case, the debtors did not object to using their settlements to estimate their liability and did not estimate potential verdicts as prescribed by case law. This is evident from Judge Fitzgerald's opinion. Memorandum Opinion at 11 n.24 ("This estimation proceeding considers as factors causation and the likelihood of the numbers of claims that are valid. The issue is how to evaluate factors and, *given Debtors' reluctance to use only jury verdicts to value their liability, we are left with their settlement history*." (emphasis added)).

[29] Hr'g Tr. 4846:15-25, Aug. 22, 2013 (Bates).

[30] Hr'g Tr. 2903:11-25, Aug. 5, 2013 (Bates).

By contrast, Dr. Bates did estimate the parameters called for by case law, including total compensatory damages, Garlock's potential share, and claimants' likelihood of success.

The Committee makes additional errors above. First, Dr. Bates did not "admit" that Garlock's verdicts are neither random nor representative—this is in fact a central part of his method, as Dr. Bates made clear in testimony the Committee ignores. (Tr. 2920:20-2921:2).

Dr. Bates did not "advocate" the adoption of an alternative information regime and testified flatly to the contrary in response to questioning from Mr. Swett: "It's not an issue of me advocating any particular outcome. I'm just describing what I believe as a result of my science would tell me what the different levels of the estimation would be based on how the information was revealed and what kind of rules prevailed in that circumstance." (Tr. 4846:11-4847:5 (Bates)). This Court, not Dr. Bates, will ultimately decide how claims are allowed in this case. Estimation Order ¶ 10. Dr. Bates's role as an expert was to show the Court what will happen under different scenarios (a Plan, rules that prevent concealment of evidence, or the tort system).

Finally, the Committee again stretches the record when it claims that Dr. Bates "did not rely on any of Garlock's medical or scientific defenses in reaching his conclusions." To the contrary, Dr. Bates testified that the scientific evidence Debtors presented corroborates his estimate of a low likelihood of plaintiff success against Garlock. (Tr. 2902:21-2903:7 (Bates)). Dr. Bates did adopt the claimant-friendly assumptions described above in order to present an upper bound estimate, but the scientific evidence Debtors offered confirmed the conservatism of Dr. Bates's forecast.

14. As foundation for his opinions, Dr. Bates rests on a collection of data assembled by Bates White in what was referred to as the "Garlock Analytical Database." A second Bates White representative, Jorge Raúl Gallardo-García, Ph.D., testified that he

was responsible for supervising the construction of that database,[31] which includes the Garrison Database as well as other information and discovery materials that Bates White received for use in the estimation proceeding.[32] Dr. Gallardo-García was admitted as an expert in statistical analysis, economic modeling and the construction of databases for those tasks.[33] He testified that the Garlock Analytical Database meets statistical standards of reliability for the work that Dr. Bates performed in this case.[34]

15. Dr. Gallardo-García admitted that in its prepetition estimation work for EnPro Industries Inc. (Garlock's ultimate shareholder) ("EnPro"), Bates White followed a more conventional methodology to make "a reliable and reasonable estimate of the aggregate amount of money that Garlock will require to satisfy present and future mesothelioma claims," looking at Garlock's prior claims history and what the company paid in the tort system to resolve those claims, and relying on the Garrison Database.[35] He testified that the Garrison Database is robust and contains a significant amount of information.[36] He explained that in the estimation proceeding, however, Dr. Bates is measuring something different.[37] Dr. Gallardo-García returned to the stand as a rebuttal witness and testified that he found errors in the analytical databases of Drs. Peterson and Rabinovitz,[38] flowing chiefly from their use of Garlock's historical claims information

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[31] Hr'g Tr. 2612:4-5, 2619:19-2620:5, Aug. 2, 2013 (Gallardo-García).

[32] *Id.* at 2624:4-9, 2625:5-2636:10.

[33] *Id.* at 2617:14-17, 2619:12-13.

[34] *Id.* at 2620:16-20.

[35] *Id.* at 2666:8-19, 2667:15-2668:18.

[36] Hr'g Tr. 2647:18-25, 2679:7-15, Aug. 2, 2013 (Gallardo-García).

[37] *Id.* at 2624:19-22.

[38] Hr'g Tr. 4680:2-8, Aug. 22, 2013 (Gallardo-García).

rather than data preferred by Bates White and their coding of certain data in ways that Dr. Gallardo-García deemed incorrect.[39]

RESPONSE: Dr. Gallardo-Garcia never testified that Bates White followed a "more conventional methodology" in pre-petition expenditure estimates, which is instead the Committee's editorial comment based on its adherence to four cases from outside this jurisdiction where debtors did not dispute their liability and consented to the use of settlements to estimate their asbestos liabilities. Dr. Gallardo-Garcia (as well as Dr. Bates) testified clearly and unequivocally that Bates White was measuring expenditures, not Garlock's liability, in pre-petition estimates. (Tr. 2624:19-23 (Gallardo-Garcia), Tr. 2776:3-2778:7, 2831:8-2832:13, 4755:20-4756:18 (Bates)). It is inappropriate to equate these expenditures with Garlock's legal liability, given Dr. Bates's opinion that Garlock's settlements exceed its legal liability by multiples, as well as the other evidence Debtors presented showing that their settlements were affected by concealment of evidence and the Bankruptcy Wave that had nothing to do with the merits of claims against Garlock.

Also, although Dr. Gallardo-Garcia did not denigrate the Garrison database—which is one component of the Garlock Analytical Database—he testified that the Garlock Analytical Database is superior because it contains information not available in the Garrison database, which is why Bates White used it for its estimation work in this case. (Tr. 2624:24-2625:10 (Gallardo-Garcia)).

The errors in the databases used by Drs. Rabinovitz and Peterson did not stem from "their use of Garlock's historical claims information rather than data preferred by Bates White." To the contrary, the gravamen of Dr. Gallardo-Garcia's criticism is that Drs. Rabinovitz and Peterson

[39] ***Id.***

ignored historical claims information revealed by the PIQ process—such as dismissals that had already occurred before the petition and had not yet been recorded in the Garrison database. (Tr. 4681:2-4683:6, 4688:1-4690:13 (Gallardo-Garcia)). Thus, Drs. Rabinovitz and Peterson erred *even accepting the validity of their methodologies*, because they ignored information available in the case about claimants whose claims had been dismissed or who did not have mesothelioma. Dr. Gallardo-Garcia's testimony went unrebutted because Drs. Rabinovitz and Peterson ignored the responses claimants made to the Court's discovery orders in this case. (Tr. 4118:7-4119:2 (Peterson); Tr. 4202:20-4203:14 (Rabinovitz)).

16. Karl N. Snow, Ph.D. is an economist at Bates White and works in the areas of finance and economics. Although Dr. Bates acknowledges the need to use a risk-free rate for discounting the estimates to net present value, Dr. Snow argued for two alternative discount rates, both of which embody significant credit risk or investment risk rather than simply taking account of the time value of money. First, Dr. Snow offered Garlock's weighted average cost of capital ("WACC"), which measures the company's funding costs in light of its capital structure and credit profile.[40] Next, Dr. Snow pointed to the investment returns earned by pension funds, which he analogized to Section 524(g) trusts.[41] Finally, Dr. Snow criticized the financial experts for the Committee and the FCR for accepting a long-term average rate of inflation but insisting on market-based measures of the risk-free rate for discounting purposes, rather than relying on the long-term average yield on Treasury securities as projected by the Congressional Budget Office.[42]

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[40] Rebuttal Report of Karl N. Snow, Ph.D at 31-23, dated April 23, 2013 ("Snow Rebuttal Report") (GST-7239). *See* ¶ 2, *supra*.

[41] *Id.* at 32-40.

[42] *Id.* at 29-30.

RESPONSE: This proposed finding mischaracterizes Dr. Snow's opinions. Dr. Bates used the risk free rate because he predicted the allowed amount of claims in bankruptcy. Drs. Rabinovitz and Peterson, on the other hand, predicted only the cost of resolving claims outside of bankruptcy. Dr. Snow opined that because costs outside of bankruptcy would be discounted for both risk and the uncertainty of the forecasts, it was necessary for Drs. Rabinovitz and Peterson to use a discount rate that includes risk, such as WACC. (Amended Rebuttal Report of Karl N. Snow, PhD (dated 6/11/13) (GST-7239) ("Snow Report") at 13, 16). Alternatively, to the extent the Court attempts to predict the assets necessary for a Trust to resolve future claims, the pension rate of return is the appropriate discount rate to use. (*Id.* at 32-39).

Dr. Snow opined that if it were appropriate for Drs. Rabinovitz and Peterson to use a risk free rate, they used the wrong one. Because Drs. Peterson and Rabinovitz inflate their future forecasts and then discount them by the nominal risk-free rate, it is essential that the nominal risk-free rate be consistent with the inflation rates embedded in their nominal risk-free rates. (*Id.* at 22-24). Drs. Peterson's and Rabinovitz's use of short-term ("spot") risk-free rates while using long-term inflation rates results in discount rates that are too low, as shown by the real discount rate of approximately one percent or less implied by those rates. (*Id.* at 23, 26-27, 53-54). Had they wanted to use spot Treasury rates for their nominal discount rates, Dr. Snow concluded that Drs. Peterson and Rabinovitz should have used the much lower inflation rates implied by those nominal discount rates, which are reported by the Cleveland Fed. (*Id.* at 27-29). Or, if they used long term inflation rates, they needed to use long term risk free rates, i.e., the matching risk free rate in the CBO report, which would yield a nominal risk free rate of over five percent and a real risk free rate of approximately three percent. (*Id.* at 29-30). Their use of mismatched discount and inflation rates resulted in a significantly inflated forecast—Dr. Peterson's forecast was

inflated by 18%, and Dr. Rabinovitz's forecast was inflated by 17%. (*Id.* at 42). Interestingly, both Drs. Peterson and Rabinovitz have, until this case, avoided this issue in their past work, and regularly applied both long-term inflation and nominal risk-free discount rates. (*Id.* at 27).

Called by the FCR

17. Dr. Francine Rabinovitz is the asbestos personal injury claims estimation expert for the FCR.[43] She has experience as an expert witness in bankruptcy estimation proceedings, has projected asbestos personal injury liabilities in other contexts (including for courts, defendants, solvent companies, trusts, and claims facilities), and is a leading expert in her field.[44] Dr. Rabinovitz has also been recognized as an expert by various courts, and her estimations of the number and value of claims have been adopted in several cases.[45] Dr. Rabinovitz was qualified by the Court as an expert in the estimation of asbestos claims and liabilities, subject to Garlock's *Daubert* objection.[46]

18. Dr. Rabinovitz testified as to the amount of money Garlock will require to satisfy present and future mesothelioma claims and criticized Dr. Bates' methodology and conclusions.[47] Dr. Rabinovitz's estimation methodology, which is similar to that of Dr. Peterson, began with an estimate of the size of the population exposed to asbestos.[48] Next, Dr. Rabinovitz estimated the proportion of persons exposed to asbestos who will develop

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[43] Hr'g Tr. 4146:16-19, Aug. 9, 2013 (Rabinovitz).

[44] *Id.* at 4150:5-4155:1, 4157:1-4160:12.

[45] *Id.* at 4160:23-4162:25.

[46] *Id.* at 4163:16-22. *See* Future Asbestos Claimants' Representative's Opposition to Debtors' Motion to Exclude or Strike Committee and FCR Estimation Expert Witness Opinions, filed on Sept. 27, 2013 [Dkt. No. 3145].

[47] Hr'g Tr. 4147:11-19, 4164:15-19, Aug. 9, 2013 (Rabinovitz).

[48] *Id.* at 4173:25-4174:5.

mesothelioma.[49] Dr. Rabinovitz then forecasted the percentage of this population that is likely to file mesothelioma claims against Garlock in the future, known as the "propensity to sue."[50] Dr. Rabinovitz valued Garlock's pending and future mesothelioma claims by calculating the average indemnity value during a five-year calibration period from 2005 to 2010.[51] Dr. Rabinovitz also estimated the cost of defending asbestos claims by calculating the defense cost share percentage of mesothelioma and lung cancer indemnities, and then applying that percentage to pending and future liability estimates.[52] Finally, using information from the Congressional Budget Office provided by the FCR's financial advisor, Mr. Joseph Radecki, Dr. Rabinovitz adjusted the future mesothelioma claims for inflation, applying a rate of between 1.0 percent and 2.3 percent (depending on the year) for her base case and between .50 percent and 1.8 percent (depending on the year) for her adjusted indemnity case.[53] Dr. Rabinovitz then applied a risk-free discount rate of 2.81 percent, which was also provided by Mr. Radecki and was based on yields in the market for U.S. Treasuries, to determine the net present value of the claims as of the petition date.[54]

RESPONSE: In the first place, Dr. Rabinovitz did not "estimate . . . the size of the population exposed to asbestos" or "estimate[] the proportion of persons exposed to asbestos who will develop mesothelioma." Ironically, given the FCR and Committee's criticism of Dr. Bates's incidence model, the Nicholson-KPMG model upon which Dr. Rabinovitz relied only

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[49] *Id.* at 4178:14-21.

[50] *Id.* at 4180:11-16.

[51] *Id.* at 4186:1-5.

[52] *Id.* at 4191:13-4192:13.

[53] *Id.* at 4195:25-4196:9; FCR-42, at 34 (Rabinovitz Demonstrative PowerPoint).

[54] Hr'g Tr. 4195:25-4196:9, 4197:7-24, Aug. 9, 2013 (Rabinovitz).

predicts occupational incidence, as is clear from the article setting forth the model. (*See* KPMG Peat Marwick Policy Economics Group, "Estimation of Company Liability Personal Injury," Vol. 1 at 1 (1992) ("KPMG Paper") (GST-1298) at 1). Dr. Rabinovitz does precisely what she accuses Dr. Bates of doing, which is exclude incidence not related to occupational exposure.

Second, Dr. Rabinovitz did not truly testify "as to the amount of money Garlock will require to satisfy present and future mesothelioma claims." Rather, she testified that she only attempted to measure the projected cost of resolving claims *in the tort system*. (Tr. 4353:18-4354:2 (Rabinovitz)). No party appears to believe that claims will be resolved in the tort system, so her opinion is irrelevant even on its own terms. Dr. Rabinovitz did not, for example, predict the cost of resolving claims under a plan or in bankruptcy, unlike Dr. Bates. (Tr. 4294:7-4297:6 (Rabinovitz)).

This proposed finding is also striking for what it does not cover. Dr. Rabinovitz did not measure allowed claims, did not draw any connection between Garlock's settlements and the merits of claims, and did not estimate any of the parameters relevant to allowed claims, such as compensatory damages, Garlock's share of such damages, or the plaintiff's likelihood of success. (Tr. 4364:23-4367:10 (Rabinovitz)).

19. Dr. Rabinovitz estimated that the amount of money that Garlock will need to resolve pending and future mesothelioma claims is approximately $1.217 billion to $1.292 billion net present value, including defense costs.[55] Exclusive of defense costs, Dr. Rabinovitz's estimate is between $913.4 million and $969.5 million.

RESPONSE: This proposed finding is false. Dr. Rabinovitz testified that her estimate without defense costs is $893 million to $949 million. (Tr. 4293:7-19 (Rabinovitz)).

[55] ***Id.* at 4222:21-23.**

20. Mr. Joseph Radecki is a Managing Director of Lincoln International, a global investment bank, and the FCR's financial advisor in this case.[56] Mr. Radecki was accepted, without objection, as an expert in determining appropriate inflation and discount rates for net present value calculations.[57] Mr. Radecki testified regarding the appropriate inflation rate for Dr. Rabinovitz to use in calculating the undiscounted amounts of Garlock's future mesothelioma liabilities in her base case.[58] Mr. Radecki also testified regarding the appropriate discount rate for use in converting the nominal amounts of the future mesothelioma liabilities in Dr. Rabinovitz's projection to net present values. Mr. Radecki testified that he determined the appropriate "risk-free" discount rate in this case by identifying the point on the yield curve for U.S. Treasury securities that correlates to the "weighted average life" of the future mesothelioma liabilities in Dr. Rabinovitz's projection.[59]

RESPONSE: See Garlock's response to Proposed Finding of Fact #16 above.

Called by the Committee

21. Mark A. Peterson, Ph.D. is the Committee's asbestos personal injury claims estimation expert and a recognized expert in the field of mass tort estimation. Educated as a lawyer and social psychologist, he is a co-founder of the Rand Corporation's Institute of Civil Justice and has devoted his career to empirical research in the areas of civil litigation

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[56] Hr'g Tr. 1340:10-1341:5, July, 26, 2013 (Radecki).

[57] *Id.* at 1345:9-13.

[58] *Id.* at 1346:11-20.

[59] *Id.* at 1349:19-1350:9, 1352:17-18, 1353:7-13.

and mass tort, with substantial emphasis on asbestos matters.[60] In the 1980s and 1990s, he consulted for federal judges in asbestos matters in Ohio, Texas, and New York, including with respect to the reformation of the Manville trust.[61] He has done estimation work for many official asbestos claimants committees, but also for insurance companies, defendants, and trusts, and has testified about estimation issues roughly 25 times.[62] Courts have adopted Dr. Peterson's estimates.[63] The Court admitted Dr. Peterson as an expert on asbestos litigation, subject to ruling on Garlock's *Daubert* motion.[64]

22. Dr. Peterson testified regarding his aggregate estimate of pending and future mesothelioma claims against Garlock and criticized Dr. Bates' methodology and conclusions. To generate his own estimate, Dr. Peterson used a standard method similar to that used by Dr. Rabinovitz and indeed, in other contexts, by Dr. Bates.[65] To estimate the pending mesothelioma claims, he counted the number of such claims in the Garrison Database, determined what percentage of claims Garlock paid historically (referred to as the payment rate) and determined the average settlement that Garlock paid.[66] He derived the payment rate and average settlement amount from Garlock's actual claims experience during a "calibration period" running from 2006 through May 2010 (Garlock filed

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[60] Hr'g Tr. 3847:21-3849:11, Aug. 8, 2013 (Peterson).

[61] *Id.* at 3849:11-3850:2.

[62] *Id.* at 3850:3-11, 3850:24-3851:5.

[63] *E.g., In re Federal-Mogul Global, Inc.*, 330 B.R. 133, 164 (D. Del. 2005).

[64] *Id.* at 3851:9-15. *See* Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee and FCR Estimation Witness Opinions, filed on Sept. 27, 2013 [Dkt. No. 3153-original filed under seal].

[65] Hr'g Tr. 3881:25-3882:5, Aug. 8, 2013 (Peterson).

[66] *Id.* at 3882:7-12; 3882:24-3883:7.

bankruptcy on June 5, 2010). He then multiplied the foregoing factors together to arrive at the value of pending claims.[67]

RESPONSE: Contrary to this proposed finding, Dr. Peterson's method has been used only in cases where the debtor did not dispute its liability or object to using settlements to estimate its liability, and is therefore not "standard" for purposes of this case. Moreover, although his method of extrapolating from the recent past is similar to Dr. Rabinovitz's methodology, it is not the methodology Dr. Bates used when he had the similar goal of predicting future tort system expenditures. Dr. Bates, unlike Drs. Rabinovitz and Peterson, did account for the future impact of Trusts on tort system expenditures, using a range of data from Garlock's past (including the 1990s) to predict different degrees of impact from the Trusts. (Tr. 2877:25-2878:9 (Bates)). When performing that work, Dr. Bates also tested the degree of uncertainty in his forecast, which neither Dr. Peterson nor Dr. Rabinovitz did in this case, a point made by Prof. Heckman. (Tr. 2877:19-22 (Bates), Tr. 4245:23-4246:19, 4246:20-4249:1 (Heckman)).

Furthermore, Dr. Peterson did not derive his payment rate and average settlement from Garlock's "actual claims experience" during the calibration period because he ignored data available from the PIQ process showing additional claims that were dismissed or not mesothelioma claims, and that were not reflected as such in the Garrison database. Dr. Gallardo-Garcia and Dr. Bates showed that this and other database errors meant Dr. Peterson's forecast, even accepting his methodology, was $190 million too high. (Tr. 4779:4-8 (Bates), Bates Rebuttal Demonstrative Slides at 5 (GST-8026)).

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[67] *Id.* at 3882:19-21.

23. To estimate future claims, Dr. Peterson first forecasted the number of mesothelioma claims that would be brought against Garlock if it were not protected by bankruptcy. To do so, Dr. Peterson relied on Dr. Nicholson's widely-accepted and empirically corroborated epidemiological forecast of the incidence of mesothelioma in the United States, as extended through the year 2049.[68] He then forecasted what percentage of these future mesothelioma victims would bring claims against Garlock, a percentage known as the "propensity to sue," thereby calculating the total number of expected claims.[69] To that total, he applied the assumed payment rate and the average payment amount derived from Garlock's historical experience in the calibration period.[70] Because the data for the calibration period reveal a steady increase year-by-year in mesothelioma victims' propensity to sue Garlock, Dr. Peterson determined that, if Garlock remained in the tort system, this pattern would likely continue for about four years, after which the propensity to sue would stabilize.[71] Using these historically-derived assumptions for the propensity to sue, the payment rate, and the average payment amount, Dr. Peterson projected year-by-year, in nominal dollars, the amount that Garlock would pay to extinguish asbestos claims through 2049.[72] He adjusted those nominal dollars for future inflation, using an inflation rate of 2.5 percent, and then discounted the resulting stream of

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[68] ***Id.*** **at 3890:19-3891:5, 3891:19-3893:23.**

[69] ***Id.*** **at 3897:11-3898:4.**

[70] ***Id.*** **at 3902:3-9.**

[71] ***Id.*** **at 3898:5-3899:23.**

[72] ***Id.*** **at 3890:11-13.**

annual payments to net present value using a discount rate of 3.251 percent provided by the Committee's financial consultant, Mr. McGraw.[73]

RESPONSE: The Nicholson model used by Dr. Peterson does not predict "incidence of mesothelioma in the United States," but rather only occupational incidence, as is clear from Dr. Nicholson's article. (*See* Nicholson, William J., et. al., *Occupational Exposure to Asbestos: Population at Risk and Projected Mortality – 1980-2030*, American Journal of Industrial Medicine 259, 282 (1982) ("Nicholson Paper") (GST-1311)).

The Nicholson model is not empirically corroborated. To the contrary, its correspondence with the total SEER data falsifies Nicholson because SEER includes the total incidence of mesothelioma, whereas Dr. Nicholson only attempted to predict occupational incidence, which is much smaller and is approximated by the male portion of SEER. Dr. Rabinovitz made this very point when she was retained by a debtor in the *ASARCO* case, where she called comparison of total SEER to Nicholson "misleading." (Expert Rebuttal Report of Dr. Francine F. Rabinovitz, *In re ASARCO LLC* (June 27, 2007) (GST-6587) at 10). All of this is why Dr. Bates's comprehensive model of national and asbestos-related incidence—the only model that incorporates recent SEER data—is superior to both Nicholson and Nicholson-KPMG.

Dr. Peterson provided no basis for believing that claimants' propensity to sue Garlock would increase for four years. The only basis he gave in his report was that the estimate he obtained without the trend was "implausibly low," showing the results-oriented nature of his projection. (Tr. 4763:24-4764:8 (Bates)). Dr. Peterson also failed to observe that in Garlock's history, as more claimants have sued, the settlement rate has decreased, such that no additional payments are made even when propensity to sue increases. But Dr. Peterson did not decrease his

[73] *Id.* at 3902:9-13.

settlement rate when he increased propensity to sue for four years. (Tr. 4767:10-4768:15 (Bates)). Dr. Bates rightly called Dr. Peterson's propensity to sue trend a "spurious" one.

24. Dr. Peterson's resulting aggregate estimate of present and future mesothelioma claims against Garlock is $1.265 billion.[74] That estimate does not include the additional defense costs Garlock would incur if it were defending and resolving the claims in the tort system.

25. Kenneth W. McGraw is an investment banker and Senior Consultant in the Finance Practice at Charles River Associates. He has previously advised and testified as an expert in many complex financial disputes and transactions. He provided his opinion as to the appropriate discount rate to use in the present-value calculation of the forecasted stream of future indemnity payments to mesothelioma claimants, after adjusting for inflation.[75] Mr. McGraw used a risk-free rate, as consistent with financial principles and legal precedent and as necessary to ensure that the projected payments are adjusted in the discounting calculation only for the time value of money and not for any risk of nonpayment or inadequacy of funding.[76] Noting that the financial markets accept U.S. Treasury securities as risk-free, he computed the discount rate separately for each yearly installment in the forecasted payment stream by reference to the yields demanded in the marketplace, as of June 4, 2010 (the day before the petition date), on Treasury securities of maturities corresponding to the timing of the assumed payments.[77] Mr. McGraw agreed that Dr. Peterson's forecasted inflation rate of 2.5 percent is a reasonable approximation of

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[74] *Id.* at 3903:11-17.

[75] Expert Report of Kenneth W. McGraw at 2, dated February 15, 2013 ("McGraw Report") (ACC-937). *See* ¶ 2, *supra*.

[76] McGraw Report at 4-5.

[77] *Id.* at 6-7.

future rates of inflation,[78] and calculated that the varying discount rates applied on a year-by-year basis are the mathematical equivalent of a discount rate of 3.251 percent across the entire payment stream.[79] By discounting the inflation-adjusted stream of payments as described, Mr. McGraw calculated the net present value of the mesothelioma claims under Dr. Peterson's forecast as $1.265 billion.[80]

RESPONSE: See Garlock's response to Proposed Finding #16 above.

26. Mr. McGraw disagreed with Dr. Bates' assumption that the risk-free rate for the estimation should be measured by the long-term average return on Treasury securities projected by the Congressional Budget Office in its most recent Long-Term Budget Outlook. By making that assumption, and combining it with a 2.5 percent annual inflation factor, Dr. Bates arrived at a built-up yield of 5.58 percent as an invariable discount rate over the entire 50-year span covered by his estimate.[81] Mr. McGraw criticized that rate as substantially overstating the appropriate discount, and thereby substantially understating the estimate of claims, as a result of unrealistically ignoring market data and the term structure of interest rates.[82]

RESPONSE: Mr. McGraw's criticism of Dr. Bates's risk free rate does not have merit. The Congressional Budget Office, whose bona fides Mr. Radecki confirmed (as discussed in response to Proposed Finding #16 above), uses exactly the rates used by Dr. Bates for their long term forecasts (the report used by Dr. Bates) and short term forecasts (the report used by Mr.

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[78] *Id.*

[79] *Id.* at 8.

[80] Id. ¶ 16 and Exh. 8 thereto.

[81] Rebuttal to the Report of Charles E. Bates, PhD by Kenneth W. McGraw at 2, dated April 22, 2013 ("McGraw Rebuttal Report") (ACC-943). *See* ¶ 2, *supra*.

[82] *See id.* ¶¶ 1, 3, 9-10.

Radecki for his inflation rate). (Tr. 1373:2-7 (Radecki)). Furthermore, Dr. Rabinovitz previously used these CBO rates in her work, including in the Owens Corning case, though she opted to use inconsistent inflation and discount rates for purposes of this assignment. (Rabinovitz Report, *Owens Corning* (Oct. 15, 2004) at 15 n.16 (GST-6592)).

Called by Coltec

27. Dr. James Heckman, a Professor of Economics and Nobel Laureate in Economics, testified on behalf of Coltec and was accepted as an expert regarding economics, econometrics, economic forecasting, and forecasting based on future behaviors and changing incentives.[83] Dr. Heckman is an academic who studies, among other fields, econometrics, empirical economics, and law and economics.[84] Dr. Heckman criticized the reliability of Dr. Peterson's and Dr. Rabinovitz's estimation approaches, principally due to their use of a "trend line extraction" methodology and not reporting statistical confidence intervals.[85] Dr. Heckman testified that he "would have some doubts" about Dr. Peterson's and Dr. Rabinovitz's estimates.[86] Dr. Heckman conceded, however, that he has never performed an estimate of a real-world company's asbestos liabilities; had not conducted any independent analysis of Garlock's asbestos liability; and could not say whether Dr. Peterson's and Dr. Rabinovitz's estimates are wrong.[87] In fact, Dr. Heckman testified that their estimates could well be too low.[88] Dr. Heckman was not asked by Garlock to prepare

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[83] Hr'g Tr. 4233:16-22, Aug. 22, 2013 (Heckman).

[84] *Id*. at 4225:9-14, 4226:6-4227:17, 4229:9-19, 4232:3-12, 4264:6-7.

[85] *Id*. at 4225:15-4226:2.

[86] *Id*. at 4260:19-4261:7.

[87] *Id*. at 4256:10-19, 4266:5-15, 4267:5-11, 4269:16-25, 4270:3-10.

an expert report on the estimation approach used by Dr. Bates and offered no opinion as to how it compares to the approaches used by Dr. Peterson and Dr. Rabinovitz.[89]

RESPONSE: Prof. Heckman's testimony was not simply that he "would have some doubts" about the estimates prepared by Drs. Peterson and Rabinovitz. Rather, he testified that their estimates are neither reliable nor credible because neither Dr. Peterson nor Dr. Rabinovitz applied generally accepted econometric or statistical techniques, nor did they follow the scientific method. (Tr. 4233:24-4235:1 (Heckman); *see also* Tr. 4266:13-15 (Heckman) (noting that the scientific method applies to asbestos forecasts, and that "there's not a new statistics for asbestos")). The problem with their estimates is not that they employed a "trend line extraction" methodology, but rather that they simply selected the most recent period and extrapolated. Prof. Heckman testified that there is no evidence of a scientific basis for selection of their calibration period. (Tr. 4236:14-4238:10, 4241:21-4242:19 (Heckman)).

Equally problematic is that neither Dr. Peterson nor Dr. Rabinovitz performed basic tests of the statistical variability of their forecasts, tests which are an essential part of the scientific method. Neither did they provide confidence intervals for the parameters they estimated. (Tr. 4245:23-4549:1 (Heckman)). By itself, failure to provide confidence intervals renders their estimates completely unreliable. (Tr. 4249:2-4249:10 (Heckman)).

Accordingly, Prof. Heckman testified that Drs. Peterson's and Rabinovitz's estimates could be too low or too high—their failure to adhere to even the outlines of the accepted scientific method makes them so unreliable that no-one, not even Drs. Peterson and Rabinovitz themselves, could have any confidence in the accuracy of their models. (Tr. 4269:16-4269:25 (Heckman)).

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[88] *Id.* at 4269:16-25, 4270:11-14.

[89] *Id.* at 4267:15-24.

Finally, Prof. Heckman was retained by Coltec as its expert, not by Garlock. Thus, Garlock could not have instructed Prof. Heckman to address any particular question. Furthermore, unlike Drs. Rabinovitz and Peterson, Dr. Bates clearly did use the methods about which Prof. Heckman testified, including confidence intervals and the scientific method of hypothesis, model formulation, and testing. (Tr. 2707:25-2709:12, 4757:11-4758:5 (Bates)).

(ii) Fact Witnesses and Experts on Asbestos Litigation and Related Bankruptcy Topics

Called by Garlock

28. At several points in the Hearing, Garlock called as a fact witness Richard L. Magee, a Senior Vice President at EnPro since 2002 and until recently its General Counsel. He functioned throughout as the senior in-house attorney for Garlock and worked closely with the president and staff attorneys of Garrison in managing Garlock's defense and resolution of asbestos litigation.[90] Since Garlock filed bankruptcy, Mr. Magee has spent upwards of 90 percent of his time overseeing its conduct of the case.[91] At the Hearing, he testified about Garlock's involvement in asbestos litigation and its settlement and verdict history, including the differing approaches Garlock took over time with respect to resolving cases. Offering his views on some of Garlock's 15 "Designated Cases," he asserted that the plaintiffs and their counsel did not acknowledge the injured persons' exposures to the asbestos products of bankrupt insulation manufacturers, omissions that he asserted were characteristic of claims resolved by Garlock for high values.[92] He also

[90] Hr'g Tr. 1385:5-1386:14, July 26, 2013 (Magee).

[91] *Id*. at 1388:8-13.

[92] Hr'g Tr. 2593:12-2594:22, Aug. 1, 2013 (Magee); Hr'g Tr. 3089:13-25, Aug. 5, 2013 (Magee).

testified about Garlock's asbestos estimates that were included in EnPro's prepetition financial reports, not only the estimates created by Bates White after 2004, but also the independent ones that management created as targets to incentivize Garrison personnel and control overall outlays related to asbestos litigation.[93] In such an estimate, Mr. Magee himself projected a scenario in which Garlock's liability for asbestos claims through the year 2050 (chiefly for mesothelioma) would exceed $1 billion, a result that EnPro's financial reports deemed "plausible" but not "reasonable and probable." Mr. Magee acknowledged that Dr. Bates' prepetition estimates, provided to EnPro, assumed that payments to claimants by asbestos trusts for reorganized debtors would exert downward pressure on Garlock's settlement values, and the frustration he felt when this effect did not come about.[94]

RESPONSE: There are several errors in Finding of Fact #28 and fn. 93.

Finding of Fact #28. The statement " In such an estimate, Mr. Magee himself projected a scenario in which Garlock's liability for asbestos claims through the year 2050 (chiefly for mesothelioma) would exceed $1 billion, a result that EnPro's financial reports deemed 'plausible' but not 'reasonable and probable.'" has no citation because it is not supported by the record. Moreover, the figures that this statement cites were not an "estimate," but a simple extrapolation that Mr. Magee made in his notes. (Tr. 3155:16-3156-12) (Magee)). Furthermore,

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[93] Hr'g Tr. 3144:18-3145:22, Aug. 5, 2013 (Magee); Hr'g Tr. 3205:10-23, Aug. 6, 2013 (Magee). Mr. Magee confirmed that, in the mid-1990s, in connection with the recapitalization of Garlock and the creation of Garrison, consultants to Garlock and Coltec estimated that Garlock's pending and future asbestos claims before the recapitalization exceeded its net assets and insurance by $375 million. Hr'g Tr. 3182:8-20, Aug. 6, 2013 (Magee). Coltec put forward the above-referenced estimate and conclusion in litigating its claim to certain tax benefits connected with the creation of Garrison. *See Coltec Indus., Inc. v. United States,* 454 F.3d 1340 (Fed. Cir. 2006) (reproduced as ACC-175).

[94] Hr'g Tr. 3375:23-3376:16, Aug. 6, 2013 (Magee); Hr'g Tr. 2581:18-2582:21, 2586:4-18, Aug. 1, 2013 (Magee).

Mr. Magee did not testify the $1 billion scenario was "chiefly for mesothelioma claims," but an extrapolation of payments for all asbestos-related claims. (Tr. 3156:4-12) (Magee).

Fn. 93. The statement "Mr. Magee confirmed that, in the mid-1990s, in connection with the recapitalization of Garlock and the creation of Garrison, consultants to Garlock and Coltec estimated that Garlock's pending and future asbestos claims before the recapitalization exceeded its net assets and insurance by $375 million."—is also not true. First, it misrepresents what the opinion in *Coltec Indus., Inc. v. United States* actually said. The opinion in that case explains that, in exchange for Garrison's agreement to assume liability for and management of all Garlock's asbestos claims, Garlock transferred to Garrison all outstanding Anchor stock, certain records, insurance policies relating to asbestos liabilities, furniture, and a $375 million promissory note from one of Garlock's subsidiaries, Stemco, Inc. The text of the opinion paraphrased by Mr. Swett during his cross examination (Tr. 3182:8-14), was a partial paragraph that explained why the $375M note was transferred to Garrison and how the amount of the note was calculated. In connection with that transaction, Arthur Anderson had determined that the projected settlement costs, judgments and defense costs exceeded the assets and insurance transferred to Garrison by $375 million. And it was for that reason that "Garrison assumed responsibility for Garlock's potential asbestos liabilities in exchange for a promissory note in the amount of approximately $375 million." This description did not say, as the Committee represents, that Garlock was insolvent by $375M. Rather, the portion paraphrased simply explains how the funding was calculated. In that transaction, Garlock was transferring assets and insurance plus a $275 million note from Stemco; it was not a statement that addressed solvency at all.

Second, Mr. Magee did not "confirm" this mistaken interpretation. At trial, the Committee put forward the court's opinion as ACC-813, saying it was "an excerpt from the Coltec Industries against United States," a decision in its tax case. (Tr. 3179:9-15 (Magee)). Mr. Magee had no knowledge of the case and could not confirm anything, and Debtors objected to questions about the opinion because of his lack of knowledge and because the entire opinion needed to be considered pursuant to Fed. R. Evid. 106 (Garlock's objection was overruled). (*See* Tr. 3180:16-22 (Magee) ("I never got involved in this case because, at all times, Goodrich was going to keep complete responsibility for this case and for the results of this case. So I won't be able to talk about any details of it."); Tr. 3181:15-3182:2 (Magee) (objecting)). Subsequent questions asked about the meaning of excerpted language, to which Garlock objected because Mr. Magee lacked knowledge to answer the questions (Garlock's objection was overruled). (Tr. 3182:22-3183:6 (Magee)).

What the Committee cites as Magee "confirming" was merely his statement, "**Again, I haven't seen this; I'll take your word for it.** And I'm confident that at least 90 percent of that amount would be for nonmalignant claims," (Tr. 3182:17-20) (Magee) (emphasis added). This testimony is not any "confirmation."

Further questions in this line, ignored by the Committee, include a denial of insolvency by Mr. Magee:

> Q. Does it come as a surprise to you to learn that according to Arthur Andersen, a professional serving Coltech in the mid-1990s, Garlock was already insolvent by almost $375 million?
>
> MR. CASSADA: Objection. No foundation.
>
> THE COURT: Overruled.
>
> THE WITNESS: I take exception to that characterization. It does surprise me that this sentence was written, **but I take objection to that characterization of Coltech's [sic] solvency**.

(Tr. 3182:22-3183:6)(Magee)) (emphasis added).

29. Mr. Magee asserted that Garlock settled claims chiefly to avoid higher costs of defense.[95] Yet Mr. Magee admitted that plaintiffs in certain of Garlock's Designated Cases admitted to insulation exposures in various ways,[96] and that plaintiffs' counsel sometimes succeeded in creating trial risk and "a perception of liability" for Garlock in mesothelioma cases, and that Garlock considered various merits-based factors when settling cases.[97] Indeed, he acknowledged the internal settlement deliberations memorialized in Major Expense Project Approval forms or "MEAs," which show that he and other senior management at Garrison and EnPro were acutely aware of the risks of trying mesothelioma claims, in light of such factors as the severity of the injured persons' damages and economic losses, the propensities of jury pools, the skills of plaintiffs' trial counsel, the variety of rules and practices in force in particular jurisdictions, and even the

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[95] Hr'g Tr. 1391:2-1392:2, 1394:2-5, July 26, 2013 (Magee).

[96] *See, e.g.*, Hr'g Tr. 3268:22-3269:9, Aug. 6, 2013 (Magee). The "Designated Cases" are 15 mesothelioma claims about which Garlock obtained extensive discovery from plaintiff law firms in the estimation proceeding. They are a subset of 26 cases that Garlock included on its "RFA 1.A List," by way of reserving the right to introduce at the Hearing specific evidence of alleged failures by plaintiffs or their lawyers to make full disclosure of known product-exposure evidence in tort suits. That reservation of rights did not apply to the additional 184 cases named on Garlock's "RFA List 1," as to which Garlock's allegations of discovery failures by tort plaintiffs do not rest on case-specific evidence, but rather on inferences it draws from other sources, such as bankruptcy ballots and trust-claim data Garlock gathered in the course of the estimation proceeding. *See* Stipulation and Order Resolving Motion of the Official Committee of Asbestos Personal Injury Claimants to Compel Debtors to Respond to Certain Discovery Requests, dated Oct. 26, 2012 [Dkt. No. 2579]; Amendment to Stipulation and Order Resolving Motion of the Official Committee of Asbestos Personal Injury Claimants to Determine Insufficiency of the Debtors' Answers to the Committee's First Requests for Admission and to Compel Debtors to Respond to Certain Discovery Requests, dated Oct. 30, 2012 [Dkt. No. 2585].

[97] Hr'g Tr. 1394:10-14, July 26, 2013 (Magee).

difficulties of trying cases alongside co-defendants with differing views.[98] Indeed, in case evaluations approved in writing by Mr. Magee and by the Chief Executive Officer of EnPro, Garrison personnel repeatedly evaluated groups of mesothelioma claims put forward by the Kazan, McClain firm in Oakland, California, as likely to produce verdicts totaling $1 billion or more if pressed to trial.[99]

RESPONSE: Mr. Magee did acknowledge that, in addition to costs, Garlock considered the probability of a plaintiff's verdict and the share of that verdict. (Tr. 1394:10-1394:14 (Magee)). That is not surprising—merits factors are a component of Judge Posner's Law and Economics model, and were considered in every case Garlock handled. However, the Committee omits Mr. Magee's testimony that in many cases, there was no expectation of an adverse verdict. (Tr. 1391:11-1391:24 (Magee)). Mr. Magee testified that in the 1990s, when plaintiffs freely admitted their exposures to insulation products, "I think everyone would acknowledge [the trial risk] side of the equation was always zero." (Tr. 1391:14-15 (Magee)). "[I]t was really the other side of the equation that was driving what [Garlock was] doing," Mr. Magee continued, "which was defendant's avoidable costs." (Tr. 1391:21-23 (Magee)).

After the Bankruptcy Wave, trial risk factored into settlements in the so-called "driver" cases. (Tr. 1410:18-23 (Magee)). Even in this era, however, defense costs was the primary reason for settlements. Mr. Magee testified that "at all times – at all times, because of the number of claims, our focus had been on avoidable costs. That's what's driven our settlement strategy throughout, is avoiding costs to resolve claims." (Tr. 1394:2-5 (Magee)). Mr. Magee, explained that in Garlock's history, it resolved more than 80% of its mesothelioma cases for amounts less

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[98] ACC-766, 767, 770, 341, 332; Hr'g Tr. 3228:23-3229:3, 3232:6-11, 3234:20-3235:12, 3237:5- 3240:9, 3246:24-3251:10, 3329:19-3332:7, 3333:8-3341:24, Aug. 6, 2013 (Magee).

[99] *Id.* at 3232:6-11; ACC-766; ACC-767.

than $25,000. (Tr. 1409:3-6 (Magee); Magee Demonstrative Slides at 2 (GST-8018)). No party contends these were settlements to avoid costs.

The Committee also mistakenly cites, as Mr. Magee's "admission," that plaintiffs disclosed exposures in the "Designated Plaintiffs" cases, cross-examination testimony from a case that was not one of the fifteen Designated Plaintiffs.

Furthermore, the Committee mischaracterizes MEA documents. MEAs were merely after-the-fact, privileged work-product documents prepared for accounting documentation purposes that do not provide full explanations of the reasons Garlock agreed to settle cases. (Tr. 3059:9-15, 3059:22-3060:4 (Magee) (explaining that MEA was prepared after a settlement decision had been made for accounting purposes); *see also* Tr. 3057:14-3060:4 (Magee) (describing MEAs generally)). In fact, many of the MEAs contained virtually no reason for entering settlements and others cited cost avoidance. They did not memorialize internal discussions on the reasons to settle cases and cannot support this finding.

The MEA cited (from settlements with the Kazan McClain firm) referenced the potential for verdicts in *scores or hundreds* of cases perhaps yielding a billion dollars *against all defendants*—not verdicts against Garlock. That language likely was "puffing." (Tr. 3233:2 (Magee)). Garlock's risk of large verdicts, however, was small and instead motivated by costs—as demonstrated by the fact that Garlock paid "less than any other defendant in Oakland" and those settlements were for amounts "far less than the amount that would have been required for Garlock to defend and win the case." (Tr. 3233:3-5 (Magee)). Importantly, the risks described in MEAs were because of non-disclosure in those cases, not risks assessed in the context of plaintiffs' full disclosure of information. (Tr. 2573:9-2574:7 (Magee)).

30. Professor Lester Brickman is a professor at Cardozo Law School in New York, teaching contracts, a seminar on selected problems in professional responsibility and the legal profession, and land use planning. Although he has never tried a case, nor does he practice law, he has published scholarship for 22-23 years on asbestos litigation, and has testified before congressional subcommittees on matters such as the FAIR and FACT Acts and silicosis, and at two asbestos estimation trials.[100] He was offered by Garlock to provide testimony as an expert in asbestos litigation, including asbestos bankruptcy cases and asbestos trusts. Professor Brickman provided testimony supporting Garlock's interpretation of its settlement history. He gave his views of the behavior of plaintiffs and plaintiffs' counsel in asbestos litigation, including contentions that 15 designated claimants concealed or omitted to disclose asbestos exposures, particularly asbestos insulation exposures. He testified that the claimant materials Garlock's counsel provided to him were not complete files, and that he did not review those selected materials in their entirety.[101] He admitted that his knowledge of those cases was limited to information supplied by Garlock's lawyers.[102] Professor Brickman accepted that the name of the manufacturer of insulation would not have been important to a plaintiff when he tore it out 35 years earlier, and he acknowledged that a plaintiff is probably telling the truth if he says he can't remember.[103] He did not say that asbestos plaintiffs wrongfully denied exposure to insulation products.[104] Indeed Professor Brickman admitted, upon questioning about

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[100] Hr'g Tr. 1135:5-1140:16, July 26, 2013 (Brickman).

[101] *See, e.g., id.* at 1231:19-1232:25, 1246:25-1247:8.

[102] *Id.* at 1145:19-22.

[103] *Id.* at 1234:8-14.

[104] *Id.* at 1238:19-1239:1.

specific designated claimants, that they had previously testified about their exposures to insulation products.[105]

RESPONSE: Professor Brickman, in fact, opined that Garlock's settlement history in the five year period prior to its bankruptcy case (1) is not an accurate reflection of Garlock's liability for asbestos claims and (2) cannot provide a basis for accurately estimating what Garlock will have to pay pending and future claims. (Tr. 1148:6-19 (Brickman)). He explained that the basis for his opinion is that Garlock's big-dollar settlements of mesothelioma claims were affected significantly by plaintiffs' counsels' strategy of suppressing evidence of non-Garlock exposures. (Tr. 1148:20-1149:8 (Brickman)).

Prof. Brickman's knowledge about the Designated Plaintiff cases came from all available information on those cases and arose when he "methodically went through and sampled some of the voluminous material." (Tr. 1206:16-23) (Brickman)) Much of this material included testimony from the plaintiffs' lawyers who represented the Designated Plaintiffs ordered by this Court. Prof. Brickman's opinion was, as he described in his report, that the Designated Plaintiffs "wrongfully denied exposure to specific products." (Tr. 1238:14-18 (Brickman)).

Brickman did not testify "upon questioning about specific designated claimants, that they had previously testified about their exposures to insulation products." The Committee's transcript citation to support this statement (Tr. 1229:25-1231:14 (Brickman)) merely shows Mr. Inselbuch making a statement regarding Mr. Henshaw's testimony about reviewing depositions largely from claimants. The transcript shows that Prof. Brickman was unaware of Mr. Henshaw's testimony at all. For the Committee to try to spin this colloquy into an "admission"

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[105] ***Id.* at 1229:25-1231:14.**

by Prof. Brickman about the Designated Plaintiffs presses against the boundaries of candor to the Court.

31. John Turlik is an attorney at the law firm Segal, McCambridge, Singer and Mahoney. Mr. Turlik defended Garlock in asbestos litigation from 1989 until its bankruptcy, and from 2003 until 2010 was the company's "regional counsel" for the eastern United States.[106] Mr. Turlik testified as an expert regarding the assessment and evaluation of asbestos claims, assessing trial risk, the impact of evidence on trial risk, and costs incurred in defending asbestos claims.[107] He testified about the impact of the bankruptcy "wave" on Garlock and his views on how access to trust claims and ballots would provide evidence of alternative product exposures and thereby reduced Garlock's trial risk and settlement values.[108] Mr. Turlik also opined on the changes in tort litigation since Garlock's filing for bankruptcy and his views on how those changes would impact Garlock's trial risk and settlement values.[109]

32. Mr. Turlik testified that he settled the vast majority of cases and that often the settlements were completed before cases were worked up, and sometimes before a complaint was filed.[110] He stated that he considered a number of merits-based factors when making recommendations concerning settlements.[111] He acknowledged that verdicts rendered against other defendants in cases that Garlock settled before trial sometimes

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[106] *See* Hr'g Tr. 2219:17-2223:15, July 31, 2013 (Turlik).

[107] *Id.* at 2226:22-2227:4.

[108] *Id.* at 2251:2-2263:2; Hr'g Tr. 2321:3-2322:12, Aug. 1, 2013 (Turlik).

[109] Hr'g Tr. 2270:12-2278:5, Jul. 31, 2013 (Turlik); Hr'g Tr. 2321:15-2322:21, Aug. 1, 2013 (Turlik).

[110] Hr'g Tr. 2356:20-2357:10, Aug. 1, 2013 (Turlik).

[111] *Id.* at 2529:13-2533:2.

included allocations of fault to Garlock in percentages that underscored the benefit Garlock reaped by settling.[112] He also admitted Garlock never purported to pay any unaffiliated entities' share of liability, and there was nothing in the settlement agreements that required plaintiffs to cease developing evidence against other entities.[113] Mr. Turlik recognized that the law in many jurisdictions leaves plaintiffs free to assert trust claims after trial of their tort suits against non-bankrupt defendants and acknowledged that a defendant bears the burden of proof if it seeks to shift responsibility to other entities.[114] Mr. Turlik also stressed that, to apportion liability to another entity, a defendant must show that the other entity's product emitted asbestos fibers in the plaintiff's "breathing zone."[115]

RESPONSE: Mr. Turlik, consistent with the Posner Law and Economics model considered trial risk (the risks of an adverse verdict and the potential share of a compensatory award). The testimony the Committee cites discusses various factors, most of which concerned the factors that go into computing a potential compensatory award—not the plaintiff's likelihood of obtaining a verdict. Mr. Turlik's testimony was clear that the likelihood of a plaintiff's verdict, when evidence was available to Garlock was low. (Tr. 2261:17-21 (Turlik) (opinion that risk lower when Garlock has access to evidence)). The primary driver of settlements was litigation costs; it was "because of litigation costs, [Garlock was] forced to pay." (Tr. 2533:18-19 (Turlik)).

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[112] *Id.* at 2373:14-2376:24. *See* ACC-747.

[113] *Id.* at 2368:12-2369:20.

[114] *Id.* at 2334:11-20, 2378:10-2380:23, 2390:7-17.

[115] *See id.* at 2380:11-23, 2390:7-17.

Mr. Turlik did not "acknowledge," as the finding indicates, that cases in which Garlock settled, but in which Garlock was assigned a share at a trial it did not attend showed a "benefit" Garlock reaped. In fact, Mr. Turlik testified that any allocation to Garlock while absent from trial meant nothing because the defendants present would attack Garlock and Garlock would not be present to defend. (Tr. 2375:2-9) (Turlik)). Mr. Swett questioned Mr. Turlik, continually posing questions with premises that attempted to show such a benefit, but Mr. Turlik never agreed. The Committee's characterization of Mr. Turlik's testimony as an "acknowledgment" is an obvious misrepresentation of the record.

Mr. Turlik described the nature of proof when allocating liability to others in the jurisdictions in which he practiced. He emphasized how critical trust claims were to defendants in these jurisdictions:

> A . . . I did want to point out why [disclosure of trust claims is] so important --
>
> Q. Okay. Please do.
>
> A. -- especially in a state like New York. Your Honor, the more exposures we get, the more identification we get, the better our defenses are, especially the low-dose defense because it shows the volume of exposure. But in New York we also are allowed to put the bankrupts on the verdict form. So what happens is our share of the verdict is elevated, and that is something that we're aware of when we settled these cases. Both that we—that our low-dose defenses diminished, our Chrysotile defense is somewhat diminished, and also that the verdict form itself is going to be limited and, thus, expose us to a potentially higher verdict. That causes a higher trial risk and a higher settlement value.

(Tr. 2318:5-20 (Turlik)).

33. David Glaspy is an attorney at the law firm Glaspy & Glaspy in Pleasanton, California. Garlock called him as a rebuttal witness. From 1984 to 2010, Mr. Glaspy was

the national and then regional counsel for Garlock.[116] Mr. Glaspy testified as an expert regarding the assessment and evaluation of asbestos claims including trial risk, the impact of evidence on trial risk, costs and settlement values, and evaluating the extent to which laws and procedures would impact the defense of asbestos claims.[117] According to him, Garlock generally hired experts and began preparing for trial as late as possible.[118] Mr. Glaspy opined about the impact of exposure evidence in asbestos cases and his views on how that information affects trial risk, settlement values and costs.[119] He confirmed that California law does not require the filing of trust claims before litigating tort suits to conclusion, and that a defendant in that state must meet the same causation standard for proving a plaintiff's exposure to a third party that the plaintiff must meet against the defendant.[120] Mr. Glaspy testified about recent changes in California law and his views on how those changes would decrease trial risk for asbestos defendants.[121] Based on information published by a defense firm in Northern California, Mr. Glaspy also asserted that the numbers of mesothelioma claims filed in San Francisco and Oakland have fallen in recent years, but he maintains an active asbestos defense practice for many clients and acknowledged that an influx of Texas and New York plaintiff law firms into Los Angeles has resulted in an increase in mesothelioma filings in Los Angeles.[122] Mr. Glaspy disagreed with aspects of testimony given by David McClain about the Kazan McClain firm's trial

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[116] *See* Hr'g Tr. 4521:10-4523:1, Aug. 12, 2013 (Glaspy).

[117] *Id.* at 4526:19-24.

[118] Hr'g Tr. 4639:22-4640:5, Aug. 22, 2013 (Glaspy).

[119] Hr'g Tr. 4528:4-16, Aug. 12, 2013 (Glaspy).

[120] Hr'g Tr. 4590:1-10, 4656:2-9, Aug. 22, 2012 (Glaspy).

[121] *See id.* at 4584:15-4587:14.

[122] *Id.* at 4587:15-4588:21, 4649:16-4651:2.

and settlement history with Garlock (discussed below),[123] but Mr. Glaspy was confronted with certain documents that controverted his own recollections on that subject.[124] Mr. Glaspy also confirmed that he engaged in a merits-based evaluation, including trial risk, when settling cases.[125]

RESPONSE: This proposed finding is mistaken in a number of respects. First, it is wrong in its attempt to project Mr. Glaspy's description of his own practice to all of Garlock's outside counsel in saying "Garlock generally hired experts and began preparing for trial as late as possible." The testimony at trial was the following: "Q. You hired experts as late as you could in the process. A. I did." (Tr. 4639:22-23) (Glaspy)). Garlock's practices in this respect varied by lawyer and circumstance.

Second, he only acknowledged an increase in California filings at the time some firms (Baron & Budd, the Lanier firm, Waters and Kraus, Simon Eddins) had opened offices in California. (Tr. 4649:24-4650:1) (Glaspy)). These firms opened California offices in the early 2000s or earlier. Accordingly, in the testimony cited, Mr. Glaspy was talking about activity earlier in the decade. His testimony about the decline of California filings related to the latter half of the 2000s.

Third, the Committee's attempts to controvert Mr. Glaspy's testimony failed. In fact, in the testimony the Committee cites for this statement, the Committee claimed the Kazan McClain firm obtained average settlements of $200,000. (Tr. 4594:23-24) (Glaspy)). Mr. Glaspy, with documents he brought to trial, showed that the Kazan McClain firm's settlments were far lower

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[123] Hr'g Tr. 4548:17-4559:13, Aug. 12, 2013 (Glaspy).

[124] Hr'g Tr. 4593:1-4594:22, 4596:17-4613:11, Aug. 22, 2013 (Glaspy).

[125] *Id.* at 4662:23-4664:3.

than Committee counsel had tried to represent. (Tr. 4594:25-4595:9 (Glaspy); Tr. 4596:9-11 (Glaspy)).

Fourth, Mr. Glaspy conceded he considered trial risk, as Law and Economics tells us every litigant does. Many factors, he noted, reflected on a potential compensatory award, not the likelihood of a plaintiff's success. But the transcript citation the Committee offers makes clear that among things he considered were "cost to defend those cases" and costs, "[i]n a lot of cases, [was] the major factor." (Tr. 4664:3, 4664:16 (Glaspy)). The finding omits this testimony.

Called by the Committee

34. Paul J. Hanly, Jr. is an attorney and the co-founder of Hanly, Conroy, Bierstein, Sheridan, Fisher, Hayes LLP. For twenty years beginning in 1981, Mr. Hanly was national asbestos trial coordinating and settlement counsel for Turner & Newall and its subsidiaries, including Flexitallic, a gasket manufacturer, and ultimately for Federal Mogul when it acquired the Turner & Newall group.[126] Mr. Hanly was qualified as an expert on mass tort defense with a specific focus on asbestos tort defense strategies in the 1980s, 1990s, and early 2000s.[127] He testified about resolving and settling asbestos cases in the tort system, including approximately 300,000 asbestos personal injury cases.[128] He opined that many defendants began as peripheral participants in asbestos litigation, effectively "free-riding" on the defense efforts and settlement payments of lead defendants, such as Johns-Manville, the principal defendant in the entire litigation until its 1982 bankruptcy.[129] Mr. Hanly testified that when the lead defendants went into bankruptcy,

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[126] Hr'g Tr. 3405:9-3406:16, 3409:10-3410:7, Aug. 6, 2013 (Hanly).

[127] *Id.* at 3410:22-25, 3419:13-15.

[128] *Id.* at 3408:20-3409:7.

[129] *Id.* at 3426:13-3427:4, 3431:25-3432:4.

the former peripheral defendants were brought to center stage in the tort suits and could not return to the periphery.[130] Mr. Hanly opined that in the 1990s, plaintiffs were not focused on gasket products, but that as insulation companies went bankrupt the plaintiffs' bar began to focus on the gasket companies and attacking their defenses.[131] He also testified that juries were focused on doing justice in a manner that would touch the parties in the courtroom, so that "empty chair" defenses were not successful as a long-term strategy.[132] Mr. Hanly also explained that trying significant numbers of cases was not a viable strategy, and that defendants could not afford to take the risk of trial except very infrequently.[133]

RESPONSE:

This proposed finding is not based on the evidence and is irrelevant to Garlock. First, Mr. Hanly conceded that he has no experience and no basis to offer any opinion about asbestos tort litigation after 2002. (Tr. 3412:6-3413:3 (Hanly)). Mr. Hanly conceded his experience was limited, as the Turner & Newall companies were represented at trial and in settlement by joint defense groups, the Asbestos Claims Facility and the Center for Claims Resolution. (Tr. 3806:3-19 (Hanly)). His direct involvement was limited.

At trial, Mr. Hanly asserted that defendants, such as Turner & Newall and Owens Corning were "free-riding" behind Johns Manville. (Tr. 3430:12-22, Tr. 3431:25-3432:4 (Hanly)). But the process he described had to do with insulation companies, many of which were in the ACF and CCR. On cross-examination, he acknowledged that Garlock was different—

[130] *Id.* at 3431:19-21, 3432:15-22, 3434:2-9.

[131] Hr'g Tr. at 3793:21-3796:3, Aug. 8, 2013 (Hanly).

[132] Hr'g Tr. at 3435:19-3437:24, Aug. 6, 2013 (Hanly).

[133] Hr'g Tr. at 3796:4-3797:21, Aug. 8, 2013 (Hanly).

instead of "free-riding," Garlock tried hundreds of cases to verdict and enjoyed substantial success. (Tr. 3813:18-25) (Hanly) (acknowledging Garlock tried more than 150 cases to verdict in 90s, while Turner & Newall tried less than 10)).

His contentions that juries were not interested in following the law when it required assigning responsibility to parties not in the courtroom was demonstrated on cross-examination to have no basis in fact. Mr. Hanly cited only one case, *Wells*, which he was forced to concede was an unusual case where his client, Flexitallic, was unprepared for trial, obtained no discovery, and did not engage routine expert witnesses. (Tr. 3831:25-3832:12 (Hanly) (summarizing circumstances of *Wells*)); *see also* Hanly Demonstrative Slides at 6 (GST-8023) (summarizing circumstances of *Wells*); *see generally* 3829:20-3832:12 (Hanly) (discussing experts not engaged by Flexitallic in *Wells*)). He also conceded that Garlock's experience, and even Flexitallic's experience, was contrary to his view—he acknowledged Garlock's routine "empty-chair" victories and Flexitallic's substantial trial success. (Tr. 3832:13-3834:22 (Hanly); Hanly Demonstrative Slides at 7 (GST-8023); Tr. 3835:10-3837:13 (Hanly); Hanly Demonstrative Slides at 8 (GST-8023)).

35. David McClain is the senior partner at the firm of Kazan, McClain, Satterley, Lyons, Greenwood & Oberman ("Kazan, McClain") in Oakland, California. Mr. McClain has been continuously engaged in asbestos personal injury tort litigation since 1981, and his firm concentrated its practice on mesothelioma cases for 25 years or more.[134] He testified about trying and settling mesothelioma cases in the tort system, including his

[134] Hr'g Tr. 3450:21-3452:7, Aug. 7, 2013 (McClain).

experience in the early 1990s when Owens Corning went to "war" with his firm in an unsuccessful effort to force down the settlements paid to its clients.[135]

36. Mr. McClain noted the several causes of action available to mesothelioma victims under California law (including strict products liability based on "consumer expectations," strict liability for failure to warn, negligence, and fraud),[136] as well as the defenses raised by virtually all defendants in today's tort system, including "encapsulation," "low dose," and "chrysotile" defenses.[137] He also explained California's liability apportionment rules, under which a defendant bears the burdens of (1) making a prima facie case against any entity it proposes to add to the verdict sheet,[138] (2) proving each element of a recognized cause of action to establish such an entity's responsibility to the plaintiff,[139] and (3) providing the jury with a rational basis to apportion the overall responsibility for the plaintiffs' injuries, failing which the defendant itself will bear the full brunt of an adverse verdict.[140]

Based on his own experience, Mr. McClain described a pattern in tort litigation in which it is common for a defendant to win every trial in the early stages, for plaintiffs' lawyers gradually to learn how to overcome the defenses and win the cases, and for settlement then to become the predominant mode of resolving claims against that defendant.[141] Mr. McClain acknowledged that his firm has never obtained a verdict

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[135] *Id.* at 3454:13-3457:10.

[136] *Id.* at 3458:22-3461:18.

[137] *Id.* at 3464:7-3465:2.

[138] *Id.* at 3468:18-3469:4.

[139] *Id.* at 3468:1-13, 3468:18-3469:4.

[140] *Id.* at 3469:5-3470:6.

[141] *Id.* at 3494:5-7, 3453:10-3454:12, 3456:15-3457:10, 3486:15-20.

against Garlock, but affirmed that Garlock settled Kazan, McClain's strong cases to prevent them from being tried.[142] He testified that the firm's cases in which Garlock was a defendant at trial in the 1980s were ones in which the principal defendant was Owens Corning (in the midst of its "war") and the plaintiff did not have extensive gasket exposures, but in which Garlock's participation as a defendant was tactically beneficial for the plaintiff (because, for example, of Garlock's own attack on Owens Corning).[143]

RESPONSE: This finding is not relevant to the issues before the Court and the cited testimony is contradicted and not credible. First, the finding is based on Mr. McClain's opinions on the "patterns" of tort litigation based on his experience in lawsuits against Owens Corning, the maker of Kaylo-brand amphibole asbestos insulation. Garlock made chrysotile asbestos gaskets, a product that was very different from those of Owens Corning and presented completely different consideration for juries—and is thus not relevant.

Inquiry about Mr. McClain's firm shows that his testimony is contradicted by his firm's experience. He could not have observed the pattern he describes for Garlock, as his firm never obtained a verdict against Garlock—but lost every case it took to trial. In fact, his firm never tried a case against Garlock as the sole defendant and never has even gone to verdict against any gasket manufacturer by itself. (Tr. 3508:16-25 (McClain)). Based on his experience, there is no such pattern for Garlock.

38. Mr. McClain testified that the composition of his firm's cases changed somewhat from the 1990s to the 2000s, with insulator and shipyard workers becoming less numerous among the plaintiffs and Navy veterans and workers in various land-based

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[142] *Id.* at 3508:9-15, 3509:1-6.

[143] *Id.* at 3492:5-3493:22.

occupations becoming more so.[144] He stated that these changes affected the nature of the product exposure evidence that the injured persons themselves could provide, because, in comparison to workers in other occupations, insulators tended to have superior knowledge of the brands of insulation products they worked with and shipyard workers characteristically suffered extremely heavy asbestos exposures working in the confines of dry-docked ships undergoing refurbishment. By contrast, Navy veterans and land-based workers usually had contact with insulation only as bystanders, with indirect contacts much less apt to press upon them the names of insulation products, but frequently worked with gaskets and with pumps and valves using gasket components.[145] Mr. McClain testified that his clients respond honestly and fully to discovery but often do not know or remember the asbestos products to which they were exposed.[146]

RESPONSE:

Mr. McClain's opinions about the changing nature of plaintiffs' occupational backgrounds in his firm's cases were not disclosed before trial. Even though Mr. McClain could have reviewed and disclosed records from his firm to support his opinion, he did not, and did not quantify the purported changes he observed. In fact, the documentary evidence at trial contradicted his testimony. In the six RFA-1 Cases implicating his firm, the plaintiffs submitted Trust claims after 2007 against insulation manufacturers that would be inconsistent with his claim that modern plaintiffs were unable to identify such exposures. (Tr. 3513:7-3519:5 (McClain)).

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[144] *Id.* at 3471:19-3474:25.

[145] *Id.* at 3473:1-3476:8.

[146] *Id.* at 3488:3-13, 3501:5-11.

39. Mr. McClain stated that Garlock's rising prominence in asbestos litigation in his cases over the course of the 2000s resulted not only from the exiting of defendants who declared bankruptcy, but also from the changing exposure histories of the plaintiffs and developments in California law. He testified that Navy personnel, such as pipefitters, machinists and boilermakers, could easily identify Garlock gaskets, because Garlock's name was stamped on every gasket, and they had personally handled and cut the gaskets and breathed in dust from scraping the gaskets.[147] While the Navy personnel had been exposed to insulation products being used near them, they generally could not identify those insulation products.[148] Moreover, he testified, Garlock continued to make gaskets until 2000-2001, while insulation defendants stopped making asbestos insulation in 1972.[149]

RESPONSE: As detailed in the previous response, Mr. McClain's opinions about changes in occupational backgrounds was not supported by documentary evidence or tested through disclosure and pre-trial discovery. Moreover, it is inconsistent with the record of his firm's RFA-1 List claims; each of which made Trust claims based on insulation exposures that would be inconsistent with the occupational changes he describes. (Tr. 3513:7-3519:5 (McClain)).

40. Mr. McClain testified as well that California's causation standard (which is satisfied by evidence that a given product increased, to a nontrivial extent, the risk of the plaintiff's incurring mesothelioma) is favorable to claimants in gasket cases,[150] while decisions narrowing the circumstances under which an equipment manufacturer may be

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[147] *Id.* at 3477:9-3478:2.

[148] *Id.* at 3478:3-9.

[149] *Id.* at 3478:10-23.

[150] *Id.* at 3479:3-8.

held responsible for using of Garlock's asbestos gaskets as components has also increased Garlock's risks by depriving plaintiffs of significant alternative sources of recovery and making it harder for Garlock to lay off liability on the equipment makers.[151]

RESPONSE: This finding contradicts the opinion testimony of Mr. Glaspy. His opinion, based on his observations throughout the state, and the uncontroverted information concerning mesothelioma filings in Northern California, is that filings have decreased dramatically in California, thus decreasing Garlock's risk of trial in that jurisdiction. (Tr. 4589:17-18 (Glaspy)). Mr. Glaspy detailed reasons for this decline, including: (i) that decisions such as *O'Neil v. Crane Co.*, 53 Cal. 4th 335 (Cal. 2012), and *Taylor v. Elliott Turbomachinery Co., Inc.*, 171 Cal. App. 4th 564 (2009), have meant that plaintiffs must sue fewer defendants; (ii) budget cuts have led to a substantial increase in the time from filing of a case until trial (Tr. 4585:1-4586:16 (Glaspy)); and (iii) California venues have rescinded asbestos "general orders" that had standardized pre-trial procedures to make litigation more efficient. (Tr. 4586:17-4587:14 (Glaspy)).

41. Mr. McClain described his firm's extensive settlement history with Garlock, including his negotiations with Garlock's counsel David Glaspy in which they periodically settled claims in groups.[152] He testified that the trend over the course of the 2000s was "[a] dramatic increase" in settlement value in which Garlock ended up paying many multiples of what it had paid in the 1980s.[153] In Mr. McClain's experience, the trust recoveries available to his clients generally are insignificant in comparison to the damages mesothelioma claimants can obtain from solvent defendants.[154] He also testified that the

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[151] ***Id.*** **at 3479:9-3482:1.**

[152] ***Id.*** **at 3494:12-3494:15, 3495:5-3498:7.**

[153] ***Id.*** **at 3498:13-3499:2.**

[154] ***See, e.g., id.*** **at 3499:3-16.**

risk of losing even a strong case induces a dying mesothelioma victim to settle for much less than the amount he would recover if he pressed the case to a successful verdict.[155]

RESPONSE: This finding overstates and also ignores trial evidence. For instance, Mr. McClain testified on cross-examination that settlements between Garlock and the Kazan McClain firm's clients were not negotiated in groups, but individually. (Tr. 3526:21-23 (McClain)). Also, to the extent the finding asserts that values in Kazan McClain firm settlements with Garlock went up, Mr. McClain offered no documentary evidence of that fact. Mr. Glaspy, by contrast, demonstrated using actual correspondence between him and Mr. McClain that settlement values of cases with the Kazan McClain firm did not rise in the 2000s. (Tr. 4554:3-4558:1 (Glaspy)).

42. Joseph Rice is a founding partner of the Motley Rice law firm ("Motley Rice"), and Co-Chair of the Committee.[156] Since 1981 he has represented asbestos victims in all aspects of litigation; he has also served on many official committees of asbestos claimants in bankruptcy cases, frequently in the role of Chair or member of the committee's negotiating subcommittee.[157] Mr. Rice testified about trying and settling asbestos cases in the tort system, and the factors that influenced when claims were filed and how they were prepared for trial, noting that, beyond interviewing the client as to his own knowledge, his firm generally does not devote intensive effort to investigating product exposures in a case until a trial date is assigned.[158] For this reason, he testified, a claimant's response to Garlock's questionnaires will reflect only the state of his lawyer's

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[155] *Id.* at 3496:16-3497:19.

[156] Hr'g Tr. 3536:11-13, Aug. 7, 2013 (Rice).

[157] *Id.* at 3538:1-3, 3541:16-24, 3575:5-23, 3580:24-3582:11, 3586:24-3587:19.

[158] *Id.* at 3588:19-3591:17.

file as it existed when the response was given, as distinct from a fully prepared and trial-ready claim.[159]

RESPONSE: The proposition that "a claimant's response to Garlock's questionnaires will reflect only the state of his lawyer's file as it existed when the response was given, as distinct from a fully prepared and trial-ready claim" is not supported by the testimony the Committee cites. Mr. Rice provided no testimony that he was familiar with the Garlock questionnaire or the practices of other attorneys who prepared questionnaires. (Tr. 3595:19-3595:23 (Rice)).

The cited testimony was elicited by Committee counsel's leading question. The question suggested to Mr. Rice that the automatic bankruptcy stay prevented some development of cases, but Mr. Rice never testified to that, nor could he. In fact, no witness at trial testified that any plaintiff was denied information necessary to make a claim on account of the automatic stay.

Moreover, the cited testimony did not apply to all claimants. Mr. Rice was clear that the testimony he offered was limited to his firm's clients.

This finding also conflicts with the testimony of Committee witness Gary Kendall, a witness the Committee called by deposition. Mr. Kendall testified that he had access to exposure evidence early on in cases and would complete his investigation before filing an asbestos personal injury complaint. (Kendall Dep. at 21:20-21:22; 21:25-22:24; 24:9-24:21). Mr. Kendall did not suggest in any way that plaintiffs firms would need discovery from defendants to develop cases or would delay investigation of a plaintiff's case. Instead, plaintiffs' firms used their significant institutional knowledge, as well as extensive experience handling cases, to identify asbestos product exposures early in a case. (Kendall Dep. at 18:4-19:2; 20:9-21:2.)

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[159] ***Id.*** **at 3595:10-18, 3596:10-19.**

43. Taking exception to the idea that the bankruptcy filings of the early 2000s placed Garlock in a uniquely unfavorable position, Mr. Rice recounted the background to those filings in a series of watershed events in the long-running history of asbestos litigation. These included the bankruptcy of Johns-Manville in 1982;[160] the impact on formerly less prominent defendants as plaintiffs' lawyers undertook discovery and built cases against them;[161] the formation in 1985 of the Asbestos Claims Facility ("ACF") as a consortium of manufacturers and their insurers to act in concert in defending and resolving cases;[162] the breaking up of the ACF in the late 1980s, followed by the regrouping of some of its smaller manufacturer-members for similar purposes in the Center for Claims Resolution ("CCR");[163] the bankruptcies in the late 1980s and the 1990s of defendants that had grown prominent in the litigation, including Celotex, Raybestos- Manhattan, and Eagle Picher;[164] innovative judicial efforts undertaken in the 1990s to deal with the numerosity of asbestos claims through mass consolidations and test-case trials, as in the *Cimino* case in Texas and the *Abate* case in Baltimore;[165] in the mid-1990s, the attempted resolution of all present and future claims against the CCR through a novel "settlement class action" known as *Georgine* and another settlement class action involving plaintiff and defendant classes with respect to Fibreboard and its insurers, both of which were ultimately disapproved by the United States Supreme Court,[166] but not before many

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[160] ***Id.*** **at 3539:9-3540:4.**

[161] ***Id.*** **at 3540:5-3541:15.**

[162] ***Id.*** **at 3558:23-3560:8.**

[163] ***Id.*** **at 3560:9-3561:13.**

[164] ***Id.*** **at 3549:20-3550:9.**

[165] ***Id.*** **at 3542:22-3546:8.**

[166] ***Id.*** **at 3547:16-3549:19.**

millions of dollars were spent on notice campaigns that had the effect of publicizing the litigation and generating even larger numbers of claims,[167] as the 1990s drew to a close and bankruptcy loomed as the only remaining path for mass tort defendants to achieve finality.

RESPONSE: Mr. Rice testified at length about his opinions regarding the history of asbestos litigation. He spoke, however, in generalities about how bankruptcies affected the values of his clients' claims and what he could recover from defendants. He never rebutted the specific and tangible evidence presented by the Debtors about the impact of the Bankruptcy Wave on Garlock and the values of claims it had to try or resolve in the absence of evidence of exposure to those bankrupts' products.

In actuality, the evidence at trial showed that Mr. Rice's dealings with Garlock did not demonstrate that Garlock was in an "unfavorable position" vis-à-vis the plaintiffs his firm represented. Settlements between the Motley Rice firm and Garlock during the 2000s averaged $8,973. (Tr. 4695:18-4697:22 (Gallardo-Garcia); GST-8025 at 17.) Settlements in cases involving his firm and firms Motley Rice was known to be affiliated with during the 2000s averaged $14,721. (Tr. 4695:18-4697:22 (Gallardo-Garcia); GST-8025 at 17.)

44. Mr. Rice thus explained that bankruptcies have been a constant feature throughout asbestos litigation, and that reorganizations have not reduced the value of claims against solvent defendants.[168] He also recounted how his firm goes about determining which of its clients is entitled to vote under the solicitation procedures used in asbestos bankruptcies, noting that plan documents in those cases typically do not limit the class of voting asbestos claimants to those who have evidence of exposure to the debtors' products, but rather encompass all claimants who may turn out to have a claim against an

[167] *Id.* at 3554:20-3556:24.

[168] *Id.* at 3550:10-3552:13.

eventual trust based on any theory of the debtor's legal responsibility for their asbestos injuries.[169] Mr. Rice's firm therefore usually casts ballots for all clients whom it cannot rule out as possessing such a potential claim.[170] Mr. Rice noted that trusts emerging from asbestos bankruptcies usually succeed to, and make available to plaintiffs' counsel, the predecessor-defendants' documents pertaining to asbestos litigation.[171] It is also common, he testified, for a trust to publish lists of sites where the presence of its predecessor's asbestos products has been established,[172] and to accept without specific exposure evidence the claims of persons who worked there.[173] Mr. Rice stated that the publication of such a site list has usually increased by 25 percent the number of clients for whom his firm can file claims against the trust.[174]

RESPONSE: This finding is not supported by the testimony cited. Mr. Rice did not testify that the claimants for whom his firm votes in bankruptcy reorganization are those "whom it cannot rule out as possessing a potential claim." Rather, his testimony was, in fact, that his firm cast votes for those who his firm believes "will have claims," a meaningful conclusion. (Tr. 3600:22-3601:1 (Rice)). His further testimony underscored this notion—"We don't vote everybody. We vote the people that we think can make the connection to a claim." (Tr. 3601:8-9 (Rice)). Motley Rice, then, casts ballots for plaintiffs it believes, based on its assessment of each case, will have a claim against a debtor. It follows that these plaintiffs would be compelled to

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[169] *Id.* at 3599:24-3610:10.

[170] *Id.* at 3603:12-3605-12.

[171] *Id.* at 3593:1-3594:3.

[172] *Id.* at 3593:14-3594:3.

[173] *Id.* at 3604:19-3605:4.

[174] *Id.* at 3604:11-17.

identify these debtors to tort defendants in discovery, because Motley Rice believes they are responsible for the plaintiff's disease.

45. Based on his extensive experience in negotiating successful plans of reorganization with asbestos debtors,[175] Mr. Rice affirmed that the most important factor in achieving a consensual resolution is for the constituency of asbestos creditors to be persuaded that a proposed plan of reorganization treats them fairly in light of applicable non-bankruptcy law, constitutional principles, the realities of the debtors' financial condition and its responsibility to competing creditor constituencies.[176] He characterized Garlock's proposed plan as one that attempts to revise the rules and procedures under which asbestos claims against Garlock would be handled, for Garlock's advantage and in ways that it has been unable to achieve through litigation or legislation, and he predicted accordingly that the plan will not garner the support of claimants.[177]

RESPONSE: This proposed finding is not relevant to the estimation of claims. Mr. Rice's views about negotiating plans of reorganization and whether asbestos creditors would support a plan, irrespective of the value of claims, has nothing to do with the estimation the Court ordered.

46. James Patton is a bankruptcy attorney and Chairman of Young, Conaway, Stargatt & Taylor LLP.[178] He has been involved in asbestos bankruptcies and the trusts that result from those reorganizations since 1996, generally serving as counsel to the future

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[175] *Id.* at 3575:5-3582:11.

[176] *Id.* at 3582:12-3583:6.

[177] *Id.* at 3582:12-3583:6, 3610:11-3622:16.

[178] Hr'g Tr. 3672:12-21, Aug. 7, 2013 (Patton).

claimants' representatives.[179] He was certified by this Court to testify as an expert on the process of asbestos bankruptcy reorganization and the creation, organization, and operation of the trusts.[180] He testified that neither voting on a plan nor filing a claim against a trust constitutes a representation that the claimant has certainty regarding his or her knowledge of exposure to a debtor's products or has gathered all of the evidence necessary to establish a claim against the debtor in the tort system.[181] He described the history and import of provisions that limit ballots' use to voting purposes and make clear that ballots do not constitute claims.[182] He explained that voting procedures in Section 524(g) reorganizations are meant to sweep in all potential claims that are to be addressed by a trust under the plan of reorganization, so that the relief afforded by a confirmed plan, including both a discharge and the injunctive channeling of asbestos claims to a trust, will afford effective and comprehensive relief to the debtor.[183] Likewise, a Section 524(g) trust is intended to address all asbestos-related claims against the debtor, including claims that may be asserted on grounds other than exposure to the debtor's own asbestos products.[184] On these and other grounds, Mr. Patton also debunked the notion that Rule 2019 statements submitted by plaintiffs' counsel to identify multiple clients in asbestos

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[179] *Id.* at 3674:1-3678:20.

[180] *Id.* at 3678:21-25, 3681:7-9.

[181] *Id.* at 3682:15-3683:10, 3691:21-3694:7; 3709:5-3710:20. Hr'g Tr. at 3788:19-3789:17, Aug. 8, 2013 (Patton).

[182] Hr'g Tr. 3690:12-3691:2, Aug. 7, 2013 (Patton).

[183] *Id.* at 3691:21-3694:7.

[184] Hr'g Tr. 3745:12-3746:9, Aug. 8, 2103 (Patton).

bankruptcies amount, in context, to assertions that those clients possess evidence that they were exposed to the debtor's asbestos products.[185]

47. Mr. Patton noted that claimants sometimes submit claims to trusts without supporting evidence and that such deficient claims are not paid.[186] He also testified that a claimant does not necessarily have to assert that he or she possesses proof of exposure when filing a trust claim because claimants can file claims without exposure evidence and then defer them in hopes of later developing such evidence and completing the claim.[187] He testified as well that it is common for a trust to presume that persons who worked at certain sites in certain trades and time periods were exposed to asbestos products of the trust's predecessor, and that, where such a presumption applies, mesothelioma victims may submit trust claims unsupported by independent exposure evidence or any representation that the claimant possesses any such evidence.[188]

RESPONSE: The Committee's summary of Mr. Patton's testimony reflects what they hoped he might say at trial, but ignores the substance of his actual testimony. No-one involved in this case—including Garlock and Dr. Bates—has assumed that ballots are equivalent to a jury finding of liability. But the Committee ignores Mr. Patton's admission that a claimant must have a good faith basis to believe he/she was exposed to a debtor's products in order to cast a ballot in that debtor's bankruptcy case, and that individuals voting in a bankruptcy case are identifying themselves as creditors. (Tr. 3693:6-9, 3697:8-11, 3759:12-19, 3774:11-12, 3764:20-3766:3 (Patton)). The plain language of ballots offered into evidence also shows that claimants are

[185] *Id.* at 3765:22-3766:19; 3788:5-18.

[186] Hr'g Tr. 3714:8-3717:14, Aug. 7, 2013 (Patton).

[187] *Id.* at 3709:18-3710:18.

[188] *Id.* at 3709:18-3711:3.

required to certify exposure under penalty of perjury. For example, in the 2006 *Owens Corning* solicitation, claimants were required to certify under penalty of perjury that they "ha[d] experienced Owens Corning Exposure," defined as "meaningful and credible exposure" to an asbestos product for which Owens Corning was responsible. (2006 Owens Corning Class A7-M Ballot at 9 (GST-1448)). Mr. Patton admitted that in disputes in both the *Owens Corning* and *Pittsburgh Corning* bankruptcies, debtor's counsel represented in each case that a ballot reflected an allegation of exposure to the debtor's product. (Tr. 3770:24-3773:17, 3775:24-3777:17 (Patton)).

Regarding trust claims, Garlock's argument throughout this case has been that trust claims are evidence of exposure. At trial, this argument was supported by voluminous evidence, including: (i) Trust claims that themselves contain representations of exposure; (ii) affidavits attesting to exposure (*e.g.*, Brennan Eagle-Picher Trust Claim at Shein 00666 (GST-1980) ("Name of Eagle-Picher Product(s) to which Injured Party was exposed: Super 66 [insulating cement].")); (iii) judicial decisions rejecting the contention that Trust claims do not evidence exposure (*Stoeckler v. Am. Oil Co.*, No. 23451 (Tex. Dist. Ct. Angelina County Jan. 28, 2004) (GST-0661)), and (iv) admissions by witnesses aligned with the Committee including Mr. Simon and Mr. McClain (1/4/13 Simon Dep. at 134:6-14; Tr. 3503:4-12 (McClain)).

Mr. Patton's testimony was not to the contrary. He admitted during his examination that trust distribution procedures ("TDP") that govern the trusts generally require claimants to demonstrate meaningful and credible exposure to the debtor's products. (Tr. 3726:19-3729:13 (Patton)). Mr. Patton's testimony also belies the "site list" excuse the Committee has employed throughout this case. Mr. Patton admitted that persons who relied on a presumed site would most assuredly be able to prove exposure to that debtor's products if required to do so. (Tr. 3736:24-

3737:21 (Patton)). Mr. Patton confirmed that the debtor's tort system history is what informs the selection of eligible sites—presumed exposure sites are those where the company had been paying claims in the tort system, acknowledged that its asbestos-containing products were present, and had been found liable to claimants. (Tr. 3737:22-3739:5 (Patton)).

Finally, regarding Mr. Patton's alleged "debunking" of the argument that Rule 2019 statements amount to assertions of exposure, Mr. Patton referred to the language of no filed 2019 statement of record. Actual 2019 statements state, under penalty of perjury, that the filing attorney has "personal knowledge" that the listed claimants "have been injured by asbestos or asbestos-containing products mined, manufactured, marketed, distributed, sold, installed and/or produced" by the debtor. (*See*, *e.g.*, Nineteenth Amended Verified Statement of Waters and Kraus, LLP Pursuant to Federal Rule of Bankruptcy Procedure 2019 at Waters 02178 (GST-5459)).

It is also important to note that Dr. Bates did not rely on Rule 2019 statements in arriving at his estimate, only on Trust claims (which contributed 18 of the 22 exposures to Trust products that he estimated) and ballots (which contributed 4 of the 22). (Tr. 2946:24-2947:11, 2950:5-2950:12; (Tr. 3027:14-19 (Bates)).

(iii) Experts on Scientific and Medical Topics

Called by Garlock

48. Dr. David H. Garabrant is board-certified in internal medicine, preventive medicine, and occupational medicine. He was recognized by the Court as an expert in the fields of occupational medicine and epidemiology.[189] Although he has authored 185 articles

[189] Hr'g Tr. 236:3-6, 241:20-24, July 22, 2013 (Garabrant).

in the peer reviewed literature, only four of them mention asbestos.[190] He has never published any papers involving the health consequences from the use of industrial gaskets.[191] Dr. Garabrant conceded that he is not an expert on translocation of asbestos fibers from the lung to the pleura nor is he an expert in lung fiber burden analysis.[192] Moreover, Dr. Garabrant conceded that in formulating his opinions in this case, he did not incorporate the results of any in vitro or animal experiments.[193] In asbestos cases, Dr. Garabrant has testified at the request of car companies, brake suppliers, and truck and heavy equipment manufacturers and has opined that his evaluation of epidemiology demonstrates that there is no association between brake work and the development of mesothelioma.[194] Dr. Garabrant acknowledges, however, that approximately twenty studies of plumbers and pipefitters, occupations where workers use gaskets, demonstrated a five-fold risk of developing mesothelioma.[195]

RESPONSE: The Committee omits Dr. Garabrant's most significant credentials that qualified him to opine on epidemiology methodology, the results of epidemiology research dealing with asbestos exposure, and the epidemiology on low-dose chrysotile products. He is Professor Emeritus of Epidemiology at the University of Michigan, has published widely in the epidemiology literature, and has co-authored a peer-reviewed meta-analysis of asbestos exposure of vehicle mechanics who worked with brakes and gaskets. (Tr. 236:1-6, 241:7-11, 245:2-249:13 (Garabrant)). Dr. Garabrant's bottom-line opinion that gaskets and packing do not create

[190] *Id.* at 314:13-316:5.

[191] *Id.* at Tr. 317:1-3.

[192] *Id.* at Tr. 364:8-15.

[193] *Id.* at Tr. 327:20-328:25.

[194] *Id.* at Tr. 319:6-321:5.

[195] *Id.* at 293:22-294-9.

an increased risk of mesothelioma is consistent with what even Committee expert Dr. Brody agreed was the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody)).

The Committee distorts the true nature of Dr. Garabrant's publications by claiming "Although he has authored 185 articles in the peer-reviewed literature, only four of them mention asbestos." In fact, Dr. Garabrant explained that while he has published four peer-reviewed articles that mention asbestos in the title, several other of his publications have addressed asbestos issues: for example, his cohort mortality study of the UAW Ford workers. (Tr. 314:3-12 (Garabrant)).

Additionally, the Committee posits a misleading inference from Dr. Garabrant's testimony about epidemiology studies demonstrating that plumbers and pipefitters have a five-fold risk of developing mesothelioma. Dr. Garabrant explained that the increased risk in these occupations arises from exposure to thermal insulation, not gaskets and packing. He testified that "occupations that are at significantly increased risk of mesothelioma are principally the ones in which there is exposure to thermal insulation. So that's insulators, shipyard workers, plumbers and pipefitters, boilermakers, sheet metal workers, electricians, furnace operators, and so on." (Tr. 244:14-22 (Garabrant)); (Tr. 296:17-297:4 (Garabrant)).

For a more detailed discussion of Dr. Garabrant's testimony, see Appendix of Witness Trial Testimony (Docket No. 3206) (hereafter, "Witness Appendix"), 2. Garabrant.

49. Dr. David Weill is board-certified in pulmonary and critical care medicine.[196] He is currently a professor of medicine in the division of pulmonary critical care medicine

[196] Hr'g Tr. 960:20-24, July 25, 2013 (Weill).

at Stanford University.[197] The Court accepted Dr. Weill as an expert in asbestos disease and pulmonary medicine.[198] Dr. Weill conceded that he was not an expert in occupational medicine and has never written an article on mesothelioma.[199] Dr. Weill holds the opinion that chrysotile asbestos, the type of asbestos that comprised 95 percent of the asbestos used in the United States, is totally innocuous and incapable of causing pleural plaques, asbestosis, lung cancer, or mesothelioma.[200] In his opinion, the only workers exposed to chrysotile asbestos that he believes are at risk of contracting mesothelioma are chrysotile miners.[201] Dr. Weill conceded that his position is contrary to the conclusions reached by the Canadian Medical Association, the American Public Health Association, the American Cancer Society, the World Health Organization, the National Toxicology Program, the United States Public Health Service, and the World Trade Organization.[202]

RESPONSE: David Weill, M.D. was the only lung specialist to testify at trial. He is Director of the Center for Advanced Lung Disease at Stanford University Medical Center. (Tr. 961:5-963:12 (Weill). The Committee misperceives the significance of the fact that Dr. Weill is not an occupational physician. As a specialist in pulmonary medicine, Dr. Weill has authored a leading reference for occupational physicians like Dr. Brodkin and Dr. Welch. He wrote the chapter on asbestos disease for Hunter's Diseases of Occupations, 2011. (Tr. 963:6-9 (Weill)). Dr. Weill's qualifications to inform occupational physicians on the nuances of pulmonary diseases like mesothelioma results from years of study and an active clinical practice that

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[197] *Id.* at 961:5-12.

[198] *Id.* at 964:23-965:1.

[199] *Id.* at 1017:1-9.

[200] *Id.* at 1019:21-1020:6.

[201] *Id.* at 1022:2-6.

[202] *Id.* at 1022:8-1023:3, 1024:13-1025:15.

includes patient contact almost every day. (Tr. 961:15-25 (Weill)). As a specialist in the field, Dr. Weill has personally treated mesothelioma patients. (Tr. 963:10-12 (Weill)). His writings also include a chapter in the recently-published Oxford University Press text titled Asbestos and Its Diseases. (Tr. 963:1-5 (Weill)).

Dr. Weill's views on low-dose chrysotile products are consistent with what even Committee expert Dr. Brody agreed was the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody)). Dr. Weill explained that cases in the high-exposure mining context are attributable to contaminants in the chrysotile ore rather than the chrysotile fibers. (Tr. 986:25-991:12, 993:14-19 (Weill)). Dr. Weill does not believe the evidence establishes that the "pure chrysotile" fibers are causing the disease in these high exposure settings. Rather, many highly-exposed chrysotile populations where disease would have occurred if chrysotile fibers are a cause simply do not exhibit increased risk of disease. (Tr. 977:8-980:19, 983:11-990:25 (Weill)). The leading example is South Africa, where all three commercial fiber types have long been mined extensively, where mesothelioma has been associated with both amosite and crocidolite mining, and where several studies have reported the absence of mesothelioma in chrysotile populations. (Tr. 989:3-25 (Weill)).

Dr. Weill did not concede his position is contrary to statements of public health officials. Rather, he explained "it's difficult to take statements such as these and make a blanket application to all kinds of chrysotile exposure." (Tr. 1022:8-1023:3, 1024:13-1025:15 (Weill)). He explained the history that illuminates why public health concerns were expressed based on early studies (Tr. 984:16-20 (Weill)), and he described the protective no-threshold models used to project hypothetical risk from exposures about which data is unavailable. (Tr. 997:11-999:16,

1022:14-23 (Weill)). Dr. Weill explained that even if, for public health purposes, one were to assume a theoretical risk from chrysotile fibers, the theoretical risk for chrysotile fibers is hundreds of times less than the risk from the much more potent amphibole fibers. (Tr. 1011:21-1012:7 (Weill)).

For a more detailed discussion of Dr. Weill's testimony, see Witness Appendix, 7. Weill.

50. Dr. Thomas Sporn is an attending pathologist at Duke University Medical Center who is board certified in anatomic pathology and forensic pathology.[203] Dr. Sporn, however, is not an epidemiologist, nor has he published any analytical epidemiology studies of asbestos and disease.[204] Dr. Sporn was recognized by this Court as an expert in pathology, asbestos disease and asbestos fiber type mineralogy.[205] Dr. Sporn testified about the mineralogical differences between asbestos fiber types, fiber burden analysis pertaining to human lung tissue samples, and whether exposure to chrysotile asbestos found in finished products, including packing and gaskets, can contribute to cause mesothelioma in humans.[206] Although Dr. Sporn opined that chrysotile asbestos found in packing and gaskets does not contribute to cause asbestos-related disease in humans,[207] on cross-examination Dr. Sporn admitted that he has previously testified to just the opposite—that is, that chrysotile asbestos fibers can and do cause mesothelioma in humans.[208] Indeed, Dr. Sporn acknowledged that scientific and research agencies throughout this country, including but not limited to, the National Cancer Institute, the World Health Organization,

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[203] Hr'g Tr. 405:1-9, 406:1-3, July 23, 2013 (Sporn).

[204] *Id.* at 443:13-21.

[205] *Id.* at 413:6-10.

[206] *Id.* at 413:11- 414:13.

[207] *Id.* at 445:4-19.

[208] *Id.* at 447:12-448:2, 449:11-18.

the International Agency for Research on Cancer, and the United States Surgeon General have all agreed that chrysotile asbestos causes disease in human beings.[209] Dr. Sporn also testified about the limitations of fiber burden analysis in detecting chrysotile fibers in lung tissue samples from humans.[210]

RESPONSE: The Committee fails to cite Dr. Sporn's most significant credentials and publications. Dr. Sporn is head of Thoracic Pathology for Duke University Medical Center. In that role he has had responsibility for diagnosing thousands of cases of mesothelioma. Additionally, Dr. Sporn is co-author of the second edition of the textbook Pathology of Asbestos-Associated Diseases, containing detailed discussion of causation of all asbestos-associated diseases. (Tr. 412:5-11 (Sporn)). Dr. Sporn authored three chapters of this textbook, including the chapter entitled "Mesothelioma." (Tr. 412:13-15 (Sporn)). The third edition of this widely-respected text is in press. (Tr. 412:16-21 (Sporn)). Dr. Sporn explained the significance of tissue fiber burden analysis and corroborated what was established by discovery in this case, that past exposure to asbestos pipecovering and thermal insulation products caused the mesotheliomas that are the basis of virtually all claims likely to be made against Garlock. (Tr. 430:4-431:24 (Sporn)).

The Committee misstates Dr. Sporn's chrysotile opinions and past testimony. Dr. Sporn explained that a scientifically rigorous discussion must distinguish between (1) pure chrysotile fibers as they might be encountered in a laboratory situation, (2) chrysotile mine dust which may be contaminated by other minerals, and (3) the chrysotile in finished products. (Tr. 424:17-425:4 (Sporn)). He testified that dust in some chrysotile mines has been associated with increased mesothelioma, but he emphasized that is a different issue than whether the pure chrysotile fibers

[209] *Id.* at 449:11-450:8.

[210] *Id.* at 454:21-458:1.

cause mesothelioma and a far different question than whether finished end product such as gaskets and packing cause the disease. (Tr. 445:6-8, 445:11-15 (Sporn)).

As to Garlock's products, Dr. Sporn opined that low-dose chrysotile is not a cause of mesothelioma and that scientifically reliable evidence does not support considering these products causative of mesothelioma. (Tr. 425:5-17, 426:24-427:18, 441:12-17 (Sporn)). His opinion was thus consistent with what even Committee expert Dr. Brody agreed was the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody)).

Dr. Sporn testified that it is not appropriate to rely on public health regulatory analysis or public health models to reach causation. (Tr. 498:18-24 (Sporn)). For example, public health agencies may regulate based on the fact that the safe level for exposure to asbestos has not yet been determined. That is not the same as concluding that all exposures to all asbestos cause mesothelioma. In fact, although the precise thresholds are not known, the range of levels with a danger from chrysotile dust involve hundreds of fiber years of exposure—very high exposure situations—where other asbestiform minerals may also be implicated in causation. (Tr. 498:5-24 (Sporn)).

For a more detailed discussion of Dr. Sporn's testimony, see Witness Appendix, 3. Sporn.

51. Captain Charles David Wasson is a naval consultant with thirty years of naval experience.[211] Captain Wasson was recognized by this Court as an expert on the current and historical uses of asbestos-containing packing, gaskets, and insulation aboard

[211] Hr'g Tr. 150:2-9, July 22, 2013 (Wasson).

naval ships.[212] He offered testimony regarding the various naval ratings that worked with and around packing and gaskets, identified the types of insulation material that was encountered and removed to gain access to packing and gaskets, and identified the types of replacement packing and gasket materials used by the U.S. Navy. Although he opined that working with packing and gasket materials is not a dust-generating process, on cross-examination, Captain Wasson admitted that he was not qualified to opine as to the visible asbestos fibers released from gasket or packing work nor was he qualified to discuss the health consequences associated with asbestos exposure from such work.[213] He also acknowledged that he could not offer any testimony as to the various trades who worked with and around asbestos-containing gaskets, packing or insulation in connection with any land-based industrial facilities in which Garlock sold its asbestos-containing sheet gaskets.[214]

RESPONSE: Captain Wasson, not being an industrial hygienist, did not opine on asbestos exposure from gasket and packing work, but did explain that in his thirty years of experience working around asbestos-containing gaskets in the U.S. Navy, he did not see any dust from work with gaskets. (Tr. 229:15-20, 231:3-11 (Wasson)). This is in stark contrast to the amount of dust generated from work with thermal insulation, especially during insulation ripout, when all the sailors and shipyard workers are onboard at the same time, in the same machinery spaces. (Tr. 152:23-153:24, 187:12-189:1, 203:5-204:16 (Wasson); Tr. 1703:2-1705:6 (Shoemaker); *see also* Tr. 1705:15-1710:9 (Shoemaker) (admitting he heard stories from older

[212] *Id.* at 166:24-169:1.

[213] *Id.* at 168:4-20, 228:24-229:19.

[214] *Id.* at 215:19-216:18, 219:4-10.

workers about the "plenty dusty" conditions experienced by workers up until controls were instituted at his shipyards in 1978)).

For a more complete discussion of the various topics Captain Wasson covered in his trial testimony, including the typical methods used when working with asbestos-containing gaskets, packing, and insulation, see Witness Appendix, 1. Wasson.

52. Larry R. Liukonen is a Certified Industrial Hygienist who currently works for Technical Safety and Health Consulting, Incorporated, a company that he owns with his wife.[215] The Court accepted Mr. Liukonen as an expert in industrial hygiene.[216] Mr. Liukonen's testimony centered primarily on a gasket study that he performed for the United States Navy at Puget Sound Naval Shipyard in 1978.[217] Based on that study, he testified that end users did not have exposure to asbestos from working with gaskets.[218] He further testified that the only housekeeping measures recommended for the fabrication and removal of gaskets by end users was to put the waste in a plastic bag.[219] On cross-examination, however, Mr. Liukonen admitted that the term "housekeeping" as defined in his study included the use of high efficiency vacuum cleaners or porto vacs to clean areas in addition to placing the waste material in sealed impermeable polyurethane bags.[220] He also conceded that his study did not test the level of dust generated when an individual would fabricate a gasket with a hammer and shears, as would often happen in the Navy.[221] He

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[215] Hr'g Tr. 562:20-563:7, July 24, 2013 (Liukonen).

[216] *Id.* at 509:3-6.

[217] *Id.* at 510:2-511:3.

[218] *Id.* at 519:4-9.

[219] *Id.* at 518:5-23.

[220] Hr'g Tr. 569:15-570:8, July 23, 2013 (Liukonen).

[221] *Id.* at 576:17-577:6.

further agreed that he did not conduct a bulk analysis of any gasket material removed in the study and, therefore, did not know whether the material being removed contained asbestos or, if it did, how much asbestos it contained.[222] Finally, he acknowledged that his study did not disclose the location of where the operation took place, *i.e.*, in a shop or on ship, nor did it indicate the types of pipes involved in the gasket removal process.[223] With regard to work practices, Mr. Liukonen wrote in his study that, "wire brushing by its mechanical action would produce higher dust concentrations than hand scraping."[224] This statement acknowledges that the wire brushing of flange surfaces during the removal of asbestos gaskets generates measurable concentrations of dust.

RESPONSE: First, the Committee distorts Mr. Liukonen's testimony about the definition of "housekeeping" provided in the U.S. Navy gasket study. Mr. Liukonen explained that the list of housekeeping measures, which included using vacuums to clean the area and placing waste in impermeable polyethylene (not "polyurethane") bags is "[n]ot an all inclusive definition," but merely examples of "things that we might have used." (Tr. 569:15-23 (Liukonen)). He explained that one would have to look beyond the definition of housekeeping to the recommendations section of the study to determine which housekeeping measures were recommended. (Tr. 569:24-570:8 (Liukonen)).

This cross examination testimony does not, as the Committee argues, contradict his direct examination testimony that the only housekeeping measures recommended for the removal of gaskets by end users was to put the waste in a plastic bag. (*See* Tr. 518:13-23 (Liukonen)). To keep exposures below 0.1 fibers/cc, Mr. Liukonen and the other industrial hygienists who

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[222] *Id.* at 581:24-582:16.

[223] *Id.* at 591:21-592:7.

[224] *Id.* at 588:13-16.

authored the study recommended that for storage, hand shaping, removal, and flange clean up following removal, workers need only place waste in plastic bags; for installation of gaskets, "[n]o special controls are necessary." (Tr. 524:22-525:15 (Liukonen); U.S. Navy gasket study, Bremerton 1978 (GST-11974) at 48-49). Other housekeeping measures were used for secondary manufacturing activities, which are not at issue in this case. (*See* U.S. Navy gasket study, Bremerton 1978 (GST-11974) at 48-49).

Moreover, putting gasket waste in a plastic bag after the task was sampled would not in any way affect the worker's exposure during the task itself, so the Committee's emphasis on housekeeping is misplaced. (Tr. 518:24-519:3, 525:10-15 (Liukonen)). Mr. Liukonen explained that the U.S. Navy gasket study showed end users had very low exposures, below the then OSHA standard and even below the current standard. (Tr. 520:1-521:2 (Liukonen)). This explains why controls were not necessary for these end user activities.

Second, the Committee takes issue with the study's lack of data on gasket fabrication with a hammer and shears, claiming this "would often happen in the Navy." But Mr. Liukonen explained they did not sample that activity because it was "not a normal operation." (Tr. 576:17-577:6 (Liukonen) ("We did not have [the workers] in the shipyard do anything unusual.")). The Committee's own expert, Mr. Shoemaker, also testified that this was not the "preferred method" of making gaskets, and that most workers "mostly" got their pre-made gaskets from the gasket room. (Tr. 1669:13-1671:8 (Shoemaker)).

Finally, Mr. Liukonen explained that the statement that wire brushing would produce higher dust concentrations than hand scraping has not been borne out by the subsequent data. (Tr. 588:13-19 (Liukonen)). In any event, whether "measurable concentrations of dust" are generated by wire brushing flange surfaces is not the issue in this case. The relevant issue is

whether *significant* concentrations of *asbestos* fibers are generated by end user work with gaskets. As Mr. Liukonen explained, the overwhelming majority of reliable data on gasket removal is well below even the current OSHA short term limit of 1 fiber per cc. (Tr. 519:4-9, 550:16-554:14 (Liukonen); Liukonen Demonstrative Slides at 39 (GST-16004)).

For a more detailed discussion of Mr. Liukonen's testimony, see Witness Appendix, 4. Liukonen.

53. Fredrick William Boelter is an environmental engineer by training.[225] He is also a Certified Industrial Hygienist, a licensed AHERA inspector and a registered Professional Engineer.[226] The Court accepted Mr. Boelter as an expert in industrial hygiene.[227] Mr. Boelter testified about the results of a study he conducted on insulation exposure and compared them to the levels of exposure he reported in his published paper on gaskets.[228] According to his results, a pipefitter and his helper were exposed to an eight-hour time-weighted average of 86 fibers per cubic centimeter from insulation as compared to a non-quantifiable value that was less than 0.007 fibers per cubic centimeter from gasket material.[229] In discussing gasket removal, Mr. Boelter conceded that it was common to see someone using a wire brush to polish the flange surface once the gasket had been scraped to remove residue or to clean the flange surface.[230] When reviewing a videotape taken of his gasket removal test, Mr. Boelter conceded that some of the gaskets he tested were

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[225] Hr'g Tr. 625:5-9, July 24, 2013 (Boelter).

[226] *Id.* at 626:9-24.

[227] *Id.* at 682:25-683:3.

[228] *Id.* at 673:19-674:17.

[229] *Id.* at 674:18-25.

[230] *Id.* at 693:1-5.

removed intact with little gasket residue remaining on the mating surface.[231] Although published criticism of Mr. Boelter's tests indicated that close to 50 percent of all of the fittings he studied had gaskets that were removed intact, Mr. Boelter did not remember the statistics.[232] In prior testimony, however, he had represented that most of the gaskets came off intact—where one could hold it up and it still looked like a gasket.[233] Mr. Boelter also conceded that he included in his study test results of the gaskets that did not contain any asbestos.[234] Again, however, he was unable to recall exactly how many of the flanges he studied contained gaskets free of asbestos.[235]

RESPONSE: The Committee makes the unfounded suggestion, tacit here but explicit in the Committee's proposed Finding of Fact No. 159 (below), that Mr. Boelter's gasket removal results were lower than Dr. Longo's because Mr. Boelter removed "intact" gaskets. This is incorrect. In fact, some of the gaskets he studied were "pulverized." (Tr. 749:10-19 (Boelter)). Additionally, Mr. Boelter explained that for those removed gaskets that are described as being "intact," the description should not be construed as indicating a lack of residue left on the flange, residue that still had to be removed. (Tr. 744:1-14 (Boelter)). He testified that many of the gaskets in his study looked just like the gasket in the photo the Committee's attorney displayed during cross examination. (Tr. 744:15-20 (Boelter)).

Mr. Boelter's results are in line with not only 29 other studies of gasket and packing operations that he has conducted over the years and which were published in the peer-reviewed

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[231] *Id.* at 742:12-744:14.

[232] *Id.* at 746:17-747:2.

[233] *Id.* at 749:10-19.

[234] *Id.* at 748:7-16.

[235] *Id.* at 748:17-24.

literature in 2011, but also the other peer-reviewed, published data on gasket removal, as well as the data reported in the U.S. Navy gasket study. (Tr. 632:25-633:11, 671:5-672:19 (Boelter); Tr. 550:16-554:14 (Liukonen); Liukonen Demonstrative Slides at 39 (GST-16004); *see also* Debtors' Reply to the Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Witness Opinions (Docket No. 3210) (hereafter, "Debtors' Reply on Industrial Hygiene Experts") at 23-25 (explaining how Dr. Longo's results are far outside the range reported by reliable studies)).

As for the Committee's criticism that Mr. Boelter did not recall the exact number of non-asbestos gaskets in his published gasket study from 2002, Mr. Boelter testified that to the best of his knowledge, that data was included in the article, and that at least one cycle that was published, "all eight of the gaskets were asbestos-containing, and that there was no difference between the results whether they were asbestos-containing or not." (Tr. 748:7-24 (Boelter)).

This proposed finding of fact also fails to address substantial portions of Mr. Boelter's testimony concerning the methodological flaws with Dr. Longo's MAS gasket studies. For a more detailed discussion of Mr. Boelter's testimony, see Witness Appendix, 5. Boelter; and Witness Appendix, 26. Boelter Rebuttal.

54. John L. Henshaw is a Certified Industrial Hygienist who currently serves at the vice president of the Academy of Industrial Hygiene and whose past employment includes vice president of the Industrial Hygiene Association and administrator for the Occupational Safety and Health Administration.[236] Mr. Henshaw was recognized by this Court as an expert in industrial hygiene and exposure assessment.[237] Mr. Henshaw testified about potential asbestos exposures from gaskets and packing compared to

[236] Hr'g Tr. 808:2-19, 810:6-10, July 24, 2013 (Henshaw).

[237] *Id.* at 819:7-11.

potential asbestos exposures from other sources, including asbestos-containing insulation.[238] In his opinion, individuals employed in occupations that performed work on asbestos-packing and gaskets were more likely to experience significant asbestos exposure from working with and around asbestos insulation, not from the gaskets and packing.[239] Mr. Henshaw agreed that the National Academy of Sciences has concluded that chrysotile asbestos causes mesothelioma and that exposure levels as low as .0004 f/cc can cause mesothelioma and he acknowledged that the peer review process of the National Academy of Sciences was "one of the highest levels of intellectual scrutiny something can survive."[240] Indeed, Mr. Henshaw acknowledged that when the encapsulated asbestos in Garlock gaskets is disturbed by shearing, cutting, punching, tearing, sanding, scraping, brushing, abrading or grinding, asbestos fibers will be emitted into the air, where they can be inhaled and cause injury.[241] Mr. Henshaw also testified that he reviewed hundreds of deposition transcripts of current plaintiffs against Garlock and that plaintiffs frequently acknowledge exposure to other sources of asbestos.[242]

RESPONSE: Mr. Henshaw is a leader in the industrial hygiene community and a highly respected certified industrial hygienist. He is a former head of OSHA, past president (and a former vice president) of the American Industrial Hygiene Association, and the current vice president of the Academy of Industrial Hygiene, for which he will assume the presidency in 2014. (Tr. 808:2-19, 810:1-10 (Henshaw)).

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[238] *Id.* at 808:20-809:4.

[239] Hr'g Tr. 837:5-17, July 25, 2013 (Henshaw).

[240] *Id.* at 938:1-39:22.

[241] *Id.* at 894:1-895:8.

[242] Hr'g Tr. 898:10-15, 901:16-19, 910:22-912:4, July 25, 2013 (Henshaw).

The Committee fails to include the key opinion presented by Mr. Henshaw based on his detailed review of material gathered in this case. Mr. Henshaw's analysis demonstrated that any exposure the current or future claimants would have experienced from gaskets or packing would not have been significant from an industrial hygiene perspective; rather that it would have been a very small part of their total asbestos exposure. (Tr. 867:17-869:12 (Henshaw)). His work provided a foundation to answer the liability question at the core of the case against Garlock. Was the gasket and packing exposure of typical claimants minimal in relation to other exposures—was it more than a bucket in the ocean? *Moeller v. Garlock Sealing Techs., LLC*, 660 F.3d 950, 955 (6th Cir. 2011) (burden on the plaintiff to present expert testimony that exposure from product in question was more than a "bucket of water into the ocean."); *Betz v. Pneumo Abex, LLC,* 44 A.3d 27, 56-57 (Pa. 2012) ("[W]e do not believe that it is a viable solution to indulge in a fiction that each and every exposure to asbestos, no matter how minimal in relation to other exposures, implicates a fact issue concerning substantial-factor causation in every 'direct-evidence' case."). (Tr. 808:20-809:22 (Henshaw)). *See* Witness Appendix, 6. Henshaw, for a more detailed discussion of his methodology; *see also* summaries of the results of Mr. Henshaw's analysis that were admitted into evidence: Henshaw Table 8 (Summary of exposure by group) (GST-15158C); Results by Occupation and Industry (GST-15158D)).

Mr. Henshaw's methodology and his conclusions about comparative exposures were undisputed.

The Committee misstates Mr. Henshaw's testimony about the National Academy of Science's 1984 risk assessment. He did not agree that the NAS "concluded that chrysotile asbestos causes mesothelioma and that exposure levels as low as .0004 f/cc can cause mesothelioma." And the NAS did not reach those conclusions. He agreed that the NAS took the

"approach" "to treat" all fiber types the same and that the NAS's model estimated an elevated *risk* of disease for exposure at 0.0004 f/cc for a lifetime of exposure. (Tr. 938:18-939:17 (Henshaw)).

Dr. Anderson further explained that this risk assessment was not speaking to causation, but to "theoretical risk at low dose . . . in the zone of inference where we have no scientific evidence that there was any real risk at all." (*See* Tr. 4428:15-4429:1 (Anderson)). She explained the statement the Committee relies upon was "an inferred risk. It's based on inference judgments" rather than on scientific fact, and is merely the NAS's "best judgment as a foundation for setting public health policy in a protective way." (Tr. 4428:15-4429:22 (Anderson)).

The Committee also overstates Mr. Henshaw's testimony about the EPA regulation that classifies gaskets as a category one nonfriable material. Contrary to the Committee's assertion, Mr. Henshaw did not agree that gaskets are treated the same way as friable asbestos material like insulation; rather, he stated the EPA has established rules to follow if you sand, abrade, or grind gaskets. (Tr. 894:6-895:7 (Henshaw)). He certainly did not agree that asbestos gaskets potentially released fibers that "cause injury." (*See* Tr. 894:1-895:7 (Henshaw)). To the contrary, he opined that typical gasket use is below the OSHA PEL, which is regarded as a safe level of exposure in industrial hygiene. (Tr. 853:11-854:6, 866:18-21 (Henshaw)).

For a more detailed discussion of Mr. Henshaw's testimony, see Witness Appendix, 6. Henshaw.

55. Dr. Elizabeth Anderson has a Ph.D. in organic chemistry and has previously worked for the Environmental Protection Agency, where she developed various risk

assessment guidelines.[243] Dr. Anderson was recognized by the Court as an expert in the fields of toxicology, risk analysis and the application of risk analysis to public health issues.[244] Dr. Anderson's testimony in this case focused on her criticism of the Committee's experts for relying on public health agency statements as part of the basis for the Committee's expert opinions that exposure to chrysotile asbestos can cause disease.[245] On cross-examination, Dr. Anderson acknowledged that she is neither a medical doctor nor an epidemiologist. She conceded that she has never designed or published an epidemiological study pertaining to asbestos or asbestos-exposed workers in any peer-reviewed literature and she agreed that she is not qualified to take a clinical history of a patient for the purpose of assessing medical disease or causation.[246] She admitted that the International Agency for Research on Cancer, in reaching its conclusion that chrysotile asbestos causes mesothelioma in humans, relied on a comprehensive review of over 400 independent scientific and medical references, including epidemiology studies, animal studies and exposure studies.[247] Similarly, she agreed that the National Academy of Sciences, in concluding that chrysotile asbestos cause mesothelioma in humans at exposure levels as low as .0004 fibers per cubic centimeter, relied on human epidemiology studies.[248] Finally, she conceded that the World Health Organization's 1998 chrysotile monograph included twenty-nine pages of medical and scientific article citations which formed the basis of its conclusion that chrysotile asbestos poses increased health risks for all asbestos-related

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[243] Hr'g Tr. 4375:8-4376:11, Aug. 12, 2013 (Anderson).

[244] *Id.* at 4374:2-5, 4379:5-11.

[245] *Id.* at 4374:11-4375:6, 4384:7-15.

[246] *Id.* at 4412:11-21, 4413:1-9.

[247] *Id.* at 4417:3-4419:15.

[248] *Id.* at 4428:10-23.

diseases and no exposure threshold has been identified for carcinogenic risks associated with chrysotile.[249]

RESPONSE: The Committee omits the credentials that qualified Dr. Anderson to provide the Court an accurate understanding of the public health assessment literature relied upon by Committee experts. Her credentials to provide that perspective included directing development of EPA's first guidelines for risk assessment, being in charge of risk assessment at EPA, and co-authoring hundreds of EPA risk assessments. (Tr. 4374:9-4377:9 (Anderson)). She was an advisor to the National Academies of Sciences committee that developed the Red Book used by agencies as a guide to risk assessment. (Tr. 4376:17-4377:9, 4386:16-22 (Anderson)). Dr. Anderson is a founder and past president of the Society for Risk Analysis, and she was Editor-in-Chief of the scientific journal Risk Analysis. (Tr. 4377:10-4378:6 (Anderson)).

Dr. Anderson discussed why it was inappropriate to rely upon the materials the Committee has cited above in discussing low-dose causation. She explained that regulatory agencies employ a dose response model that postulates theoretical risk for exposures about which data is unavailable. (Tr. 4384:7-4386:15, 4389:5-4390:10 (Anderson)). Her testimony, thus, elucidated the science underlying decisions that prohibit use of public health literature as a foundation to establish tort liability. *See Dellinger v. Pfizer, Inc.*, 2006 U.S. Dist. LEXIS 96355, 29-31 (W.D.N.C. July 19, 2006) (public health materials "fail to test a causal hypothesis and therefore cannot support a causation opinion."); *see also Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst.*, 448 U.S. 607, 656 (1980) (public health agencies "use conservative assumptions in interpreting the data with respect to carcinogens, risking error on the side of overprotection rather than underprotection."); *Rider v. Sandoz Pharms. Corp.*, 295 F.3d 1194, 1201 (11th Cir.

[249] *Id.* at 4420:6-4424:4.

2002) (public health "analysis involves a much lower standard than that which is demanded by a court of law. A regulatory agency such as the FDA may choose to err on the side of caution. Courts, however, are required under the *Daubert* trilogy to engage in objective review of evidence to determine whether it has sufficient scientific basis to be considered reliable.").

Dr. Anderson explained that the National Academy of Sciences study from 1984, projected "theoretical risk" in the zone of inference, that it is not based on scientific fact, but "is a best judgment as a foundation for setting a public health policy in a protective way." (Tr. 4429:16-22 (Anderson)). She explained these materials do not provide a proper approach for determining true causality, because "they're not speaking of real risk." (Tr. 4429:16 (Anderson)).

For a more detailed discussion of Dr. Anderson's testimony, see Witness Appendix, 23. Anderson.

56. Dr. Lambertus Hesselink has a Ph.D. in applied physics and applied mechanics.[250] He was admitted by the Court as an expert in mechanical engineering, applied physics, light scattering and Tyndall lighting.[251] Dr. Hesselink's testimony focused on his opinion that the particles visible during the Tyndall lighting in the MAS experiments fabricating and removing Garlock gaskets were not light scattering off of single respirable asbestos fibers with diameters ranging from 0.01 microns to 3 microns.[252] On cross-examination, Dr. Hesselink conceded that Tyndall lighting has been used for decades as a method of making fine airborne particles visible to detect potential hazardous exposures.[253]

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[250] Hr'g Tr. 4436:1-15, Aug. 12, 2013 (Hesselink).

[251] *Id.* at 4439:16-20.

[252] *Id.* at 4439:22-4440:7, 4457:21-24.

[253] *Id.* at 4474:14-4476:18, 4481:14-22.

In fact, he acknowledged that the Environmental Protection Agency had Standard Operating Procedures for conducting evaluations of dust using Tyndall lighting.[254] He further agreed that the Health and Safety Laboratory in England, the equivalent of the Occupational Safety and Health Administration in the United States, also sanctioned the use of Tyndall lighting to detect invisible dust hazards.[255] In addition, he testified that his experiment and criticisms of the use and interpretation of the effects of Tyndall lighting have not been subjected to peer-review.[256]

RESPONSE: Dr. Hesselink is a professor at Stanford University who not only has PhDs in the fields of applied physics and applied mechanics but has published more than 400 articles in the peer-reviewed scientific literature and was even asked by NASA to serve on the committee charged with fixing the Hubble telescope in the 1990s. (Tr. 4436:4-22, 4437:23-4438:1, 4438:10-20 (Hesselink)). Dr. Hesselink conducted a laboratory experiment and constructed a mathematical model that demonstrated that Dr. Longo's statements to courts and juries about the videos he has produced are not scientifically correct.

The Committee's proposed finding omits the second issue Dr. Hesselink's testimony addressed: Dr. Hesselink explained not only that the bright spots in Dr. Longo's Tyndall lighting videos cannot be caused by light scattering off of single respirable fibers, but also that if respirable-size fibers were clustered in the concentrations Dr. Longo reported, they still would not be the cause of the bright spots in the videos. (Tr. 4457:17-4459:13 (Hesselink)). In fact, even if the fibers were in concentrations three orders of magnitude higher than what Dr. Longo reports, "these are off by several orders of magnitude . . . even for the largest fibers. For the very

[254] *Id*. at 4481:14-4482:6; ACC-3692.

[255] Hr'g Tr. 4476:6-4477:20, Aug. 12, 2013 (Hesselink); ACC-3691.

[256] Hr'g Tr. 4473:18-22, Aug. 12, 20313 (Hesselink).

smallest fibers they're off by something like five or six orders of magnitude. And so it's not clusters that are represented in that [Tyndall lighting] image." (Tr. 4459:2-10 (Hesselink)).

Although Dr. Hesselink agreed "the general method of Tyndall lighting has been around for a long time," he also explained that the method described in the Health and Safety Laboratory and EPA documents only describe the generic setup, not the specific methods or parameters of determining whether respirable size particles can be visualized under the conditions Dr. Longo used. (Tr. 4475:13-4476:5, 4477:11-20, 4479:22-4480:12, 4481:14-15 (Hesselink)).

For a more detailed discussion of Dr. Hesselink's testimony, see Witness Appendix, 24. Hesselink.

Called by the Committee

57. Dr. Laura Stewart Welch is a board-certified internist and occupational medicine physician who has diagnosed and/or treated at least a thousand patients with asbestos-related disease, and has conducted an extensive longitudinal epidemiological study of sheet metal workers and asbestos-related lung disease.[257] Dr. Welch has published approximately 50 papers in the peer-reviewed medical and scientific literature, more than a dozen of which involved asbestos-related disease, and has also peer-reviewed articles submitted for publication in industrial and occupational medicine journals around the world.[258] Dr. Welch has been recognized by state and federal courts, including asbestos-related bankruptcy proceedings, as an expert in asbestos-related epidemiology and causation and has testified before Congress twice on these topics.[259] One of Dr. Welch's epidemiology studies relating to mesothelioma causation was cited by the International

[257] Hr'g Tr. 2078:15-21, 2083:14-2084:25, 2099:4-22, July 31, 2013 (Welch); ACC-3001.

[258] Hr'g Tr. 2082:2-2083:13, 2099:23-2100:8, July 31, 2013 (Welch); ACC-3001.

[259] Hr'g Tr. 2099:23-2101:3, July 31, 2013 (Welch).

Agency for Research on Cancer in its 2012 Monograph on asbestos.[260] This Court recognized Dr. Welch as an expert in internal medicine, occupational medicine, the epidemiology of asbestos-related disease, and the causation of mesothelioma.[261] Dr. Welch testified about the epidemiology of asbestos related diseases, the causation of asbestos related diseases, and what the medical and scientific literature reveals about asbestos exposures from working with asbestos-containing packing and gaskets and other chrysotile asbestos products. She testified that it is the general consensus in the scientific community that all commercially available fiber types of asbestos, including chrysotile asbestos, cause mesothelioma.[262] In discussing the foundations of her opinion, Dr. Welch discussed various epidemiology studies conducted all over the world showing an increased risk of mesothelioma in cohorts of people exposed to chrysotile asbestos.[263] In regard to fiber potency, Dr. Welch testified that while amphibole forms of asbestos are likely more potent in causing mesothelioma on a fiber per fiber basis, many of the studies used to calculate potency differences are outdated. Indeed, in 2008 a science advisory board convened by the Environmental Protection Agency to quantify the differences in fiber types determined that the historical data are not sufficient to conclude that chrysotile asbestos is less potent than amphibole asbestos.[264]

RESPONSE: The Court reserved ruling on Debtors' *Daubert* motion challenging the admissibility of Dr. Welch's testimony. See July 15, 2013 Order (Docket No. 3034).

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[260] *Id.* at 2089:21-2091:3.

[261] *Id.* at 2102:8-14.

[262] *Id.* at 2104:7-2106:23.

[263] *Id.* at 2111:8-2121:11.

[264] *Id.* at 2092:22-2096:10, 2104:7-2106:2, 2188:1-8.

The Committee omits to mention that most of Dr. Welch's asbestos experience derives from her participation in asbestos screenings by reading x-rays and sending letters to workers informing them that they may have an asbestos-related disease. (Tr. 2161:12-2162:14 (Welch)). Yet Dr. Welch is not a radiologist and has failed the NIOSH B-reader exam, the certification exam for using x-rays to make the difficult diagnoses of asbestosis or pleural plaques. (Tr. 2160:9-2162:14 (Welch)). Dr. Welch's clinical experience with mesothelioma is virtually non-existent. She has never treated a patient with mesothelioma, and has seen only one patient whom she suspected of having mesothelioma. (Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions filed 7/3/13 [hereafter "Motion"], Appendix C, Welch Dep. at 15:9-16:15).

Dr. Welch has long been an advocate and much of her publishing on asbestos disease has appeared in an advocacy journal now published by a notorious plaintiffs' expert (Tr. 2164:4-2167:25 (Welch)) who has been sanctioned for violating court orders and whose opinions have been excluded for manipulating data. Her article on peritoneal mesothelioma was published in the same journal. (Tr. 2167:2-25 (Welch)). Her past testimony, as in the Bondex bankruptcy, did not report on data that is contrary to her views. (*See* Welch Summary [attached to debtors post-hearing brief]).

Dr. Welch had not reviewed information about current claimants, (Motion, Appendix C, Welch Dep. at 10:25-11:4) and her methodology failed to consider the portion of likely claimants' cumulative exposure that would be attributable to Garlock. (Tr. 2180:18-25 (Welch)). The studies of chrysotile exposure cited by Dr. Welch dealt with the relatively few cases found in high-exposure mining or manufacturing. She presented no case-control or cohort studies demonstrating a statistically increased risk of mesothelioma among persons exposed to low-dose

chrysotile end products. On the issue of chrysotile potency, Dr. Welch cited to a public health risk assessment from Holland that regulated health on the basis that amphiboles are 50 times more potent, and even she grudgingly conceded amphiboles are ten times more potent than chrysotile. (Tr. 2187:23-2188:25 (Welch)).

Additional problems with Dr. Welch's testimony have been briefed extensively and will not be thoroughly rehashed here. See Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2981) (hereafter, "Debtors' Motion to Strike Medical Experts"), Debtors' Brief in Support of Its Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2982) (hereafter, "Debtors' Brief on Medical Experts"), and Debtors' Reply To Committee's Response And Opposition To Debtors' Motion To Exclude Or Strike Committee Medical Expert Witness Opinions (Docket No. 3204) (hereafter, "Debtors' Reply on Medical Experts"), (collectively, "*Daubert* Briefing on Medical Experts"); Witness Appendix, 16. Welch.

58. Dr. Carl A. Brodkin is a physician board-certified in internal medicine and occupational medicine.[265] In addition, while obtaining a Master's Degree in Public Health, he studied epidemiology, toxicology, and industrial hygiene.[266] Dr. Brodkin is a co-investigator in the CARET study involving over 4,000 workers exposed to asbestos, a thousand of which were pipefitters.[267] Dr. Brodkin is a co-editor of the Textbook of Clinical, Occupational and Environmental Medicine and has published more than 40 peer-reviewed articles on asbestos and asbestos disease.[268] He currently serves as an adjunct

[265] Hr'g Tr. 1917:16-24, July 30, 2013 (Brodkin); ACC-3333.

[266] Hr'g Tr. at 1954:10-24, July 30, 2013 (Brodkin).

[267] *Id*. at 1919:25-1920:11.

[268] *Id*. at 1921:18-24, 1923:5-10.

clinical associate professor at the University of Washington.[269] The Court accepted Dr. Brodkin as an expert in Occupational and Environmental Medicine. Dr. Brodkin began his testimony by discussing what is known about asbestos diseases, the dangers of asbestos gaskets and packing, and when that knowledge came about.[270] Dr. Brodkin explained how the medical evidence establishes a causal relationship between the use of gaskets and packing and the development of mesothelioma through the use of the Bradford Hill causation criteria, first with regard to chrysotile and then specifically with regard to the fabrication and removal of asbestos gaskets.[271] He concluded that chrysotile asbestos in gaskets and packing is a potent risk factor for mesothelioma.[272]

RESPONSE: The Court reserved ruling on Debtors' *Daubert* motion challenging the admissibility of Dr. Brodkin's testimony. See July 15, 2013 Order (Docket No. 3034).

Dr. Brodkin made no effort to evaluate the data about likely claimants from discovery in this case. (Tr. 2003:15-22 (Brodkin)). Rather, Dr. Brodkin admitted his methodology for determining Garlock causation "does not take into account a qualitative or quantitative assessment of the portion of a person's exposure that is attributable to the product in question as compared with their total exposure to asbestos." (Tr. 2000:10-20 (Brodkin)). Dr. Brodkin's methodology boils down to the assertion that virtually any gasket exposure—even a mere ten minutes—could suffice as a substantial cause of mesothelioma. (Tr. 2007:10-19 (Brodkin)). (His language at trial was that each "well-documented exposure" could be a "component part" of

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[269] *Id.* at 1923:11-20.

[270] *Id.* at 1927:15-1928:21, 1929:7-14, 1930:13-1931:16, 1934:8-19.

[271] *Id.* at 1951:5-1952:23, 1952:24-1954:9, 1957:17-1958:1, 1961:1-21, 1967:7-1968:25, 1970:1- 23, 1970:24-1971:22, 1973:1-16, 1979:7-12, 1979:13-1980:15, 1980:16-1981:19, 1981:20- 1984:6.

[272] *Id.* at 1989:14-1990:1.

cumulative exposure. And because, he cannot "tease out" the significance of any given exposure, all must be considered substantial causes. This was also made clear in the Rule 104 record. (Motion, Appendix C, Brodkin Dep. at 107:15-108:8.)). As he admitted, "I don't have a way of teasing [the importance of a minimal exposure] out from the other aspects of the aggregate exposure." (Tr. 2006:12-23 (Brodkin)).

Dr. Brodkin presented no case-control or cohort studies of exposure to low-dose chrysotile products causing a statistically significant increased risk of mesothelioma. The claim that he employed a valid Bradford Hill analysis is erroneous. First, his testimony did not focus solely on gaskets and packing, but rather relied primarily on analysis of high-exposure chrysotile populations. Secondly, Dr. Brodkin conceded as a scientific proposition the same point that is established by case law—that a series of such studies were required before employing one of the methods he claimed to reply upon, the Bradford Hill criteria. (Tr. 2026:14-2027:4 (Brodkin)). As explained in *Frischhertz v. SmithKline Beecham Corp.*, 2012 U.S. Dist. LEXIS 181507, 9-10 (E.D. La. Dec. 21, 2012), the Bradford Hill criteria can only be applied after a statistically significant association has been identified. *See also,* Federal Judicial Center, Reference Manual on Scientific Evidence, 599, n.141 (3d. ed. 2011) ("In a number of cases, experts attempted to use these guidelines to support the existence of causation in the absence of any epidemiologic studies finding an association . . . . There may be some logic to that effort, but it does not reflect accepted epidemiologic methodology."). *See, e.g., Dunn v. Sandoz Pharms.*, 275 F. Supp. 2d 672, 678 (M.D.N.C. 2003).

Nevertheless, Dr. Brodkin purported to rely on Bradford Hill methodology, following the views of a litigation affidavit by Dr. Lemen that was turned into an article published in an advocacy journal. (Motion, Appendix B, Weed Report at 45). As the trial testimony established,

the International Journal of Occupational and Environmental Health is where several of the articles relied upon by Committee medical experts appear. It was edited by well-known plaintiffs' experts including David Egilman (Tr. 2166:22-2167:5 (Welch)) whose opinions have been excluded for manipulating data. (Motion, Appendix B, Weill report at 54, n. 34.) Dr. Lemen's analysis, which Dr. Brodkin follows, is fatally flawed. (Motion, Appendix B, Weed Rebuttal Report at 17-18; Motion, Appendix B, Weed Report, Sections C-G). Dr. Brodkin admitted in his deposition that the Lemen article was not an objective review of the evidence on both sides of the question of chrysotile causation; rather, it was a "commentary" that should not be cited as a comprehensive objective review. (Motion, Appendix C, Brodkin Dep. at 159:9-160:7; *See also* Motion, Appendix B, Weed Rebuttal Report at 17).

The many other reasons Dr. Brodkin's testimony fails to pass muster under *Daubert* and the helpfulness standard for the federal rules have been briefed extensively and will not be thoroughly rehashed here. See Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2981) (hereafter, "Debtors' Motion to Strike Medical Experts"), Debtors' Brief in Support of Its Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2982) (hereafter, "Debtors' Brief on Medical Experts"), and Debtors' Reply To Committee's Response And Opposition To Debtors' Motion To Exclude Or Strike Committee Medical Expert Witness Opinions (Docket No. 3204) (hereafter, "Debtors' Reply on Medical Experts"), (collectively, "*Daubert* Briefing on Medical Experts"); Witness Appendix, 15. Brodkin.

59. Dr. Arnold Brody is a research scientist and holds a Ph.D. in cellular biology.[273] Since the mid-1970s, Dr. Brody has conducted extensive work in the area of

[273] Hr'g Tr. 1818:4-17, July 30, 2013 (Brody); ACC-3562.

experimental pathology for asbestos-related diseases including animal studies and cellular induction studies to research the potential of the various asbestos fiber types to cause disease in animals and in humans.[274] In addition to writing over 153 peer-reviewed scientific articles (130 of which relate directly to asbestos) and 55 book chapters and proceedings that relate specifically to the molecular and cellular aspects of asbestos disease, Dr. Brody has served as faculty at several medical schools and universities and lectured on pulmonary anatomy and asbestos disease.[275] This Court recognized Dr. Brody as an expert in the fields of cell biology and experimental pathology.[276] Dr. Brody provided general causation testimony as it relates to the cancer causing properties of asbestos and how asbestos fiber inhalation may result in the development of cancer and other disease processes.[277] Dr. Brody confirmed that all asbestos fiber types, including chrysotile, have been shown to cause mesothelioma, as well as all other asbestos-related diseases in humans.[278] Dr. Brody testified that inhaled asbestos fiber have the ability to damage the genetic composition of cells.[279] Wherever asbestos fibers travel in the human body, they are capable of causing injuries at the cellular level.[280] Based on his published studies, Dr. Brody opined that chrysotile asbestos is cytotoxic to human and animal macrophages

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[274] Hr'g Tr. 1821:21–1822:1, July 30, 2013 (Brody).

[275] *Id.* at 1818:22–1819:3, 1820:11–1821:7.

[276] *Id.* at 1822:2-9.

[277] *Id.* at 1824:12-18; ACC-3566.

[278] Hr'g Tr. 1858:13-22, 1860:1-18, July 30, 2013 (Brody).

[279] *Id.* at 1838:5-12, 1847:7-1857:25.

[280] *Id.* at 1853:24-1854:9.

and kills cells that function as a key component of the body's natural defense mechanism.[281]

RESPONSE: The Court reserved ruling on Debtors' *Daubert* motion challenging the admissibility of Dr. Brody's testimony. See July 15, 2013 Order Granting Emergency Motion of the Future Asbestos Claimants' Representative For Continuance (Docket No. 3034).

The Committee presents an incomplete finding with respect to Dr. Brody. Dr. Brody testified that the "consensus of the medical community [is] that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody) (admitting that in his deposition he agreed that was the consensus. (Motion, Appendix C, Brody Dep. at 149:12-150:4; Motion, Appendix D, Sporn Rebuttal References, Churg (2005)). The consensus that chrysotile-induced mesothelioma only occurs with very high exposure was published in a textbook authored by "very famous" scientists, including physicians at the Mayo Clinic. (Tr. 1902:8-11 (Brody)).

Dr. Brody's opinions on laboratory studies are contrary to the interpretation placed upon them by his two teachers and mentors, Dr. Wagner and Dr. Craighead, both of whom are famous and respected researches in this field who believe that chrysotile fibers do not cause mesothelioma. (Tr. 1898:11-1901:2 (Brody)). Additionally, Dr. Brody confirmed the testimony of Debtors' experts about the need for controlled epidemiology rather than hypothesis-generating case reports, animal studies, and biological mechanism studies. (Motion, Appendix C, Brody Dep. at 100:3-101:6). Although, Dr. Brody can demonstrate cytotoxic effects from chrysotile in laboratory experiments, he admitted that knowledge about mesothelioma causation is limited to the point that we do not yet know whether we are dealing with one type of tumor or with several

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[281] *Id*. at 1858:23-1860:4.

types of tumors. (Tr. 1891:6-20 (Brody)). Science does not yet know the precise genetic errors that have to occur in order to cause mesothelioma. (Tr. 1884:15-21 (Brody)). The mutagenic effect of asbestos at low doses is still unknown. (Tr. 1885:1-1886:6 (Brody)). Thus the "cytotoxic" effects he can produce in the laboratory cannot prove causation in the real world use of chrysotile products. Rather, Dr. Brody admitted that epidemiology is the "acid test" for determining causation. (Tr. 1894:17-20 (Brody)).

Dr. Brody has testified that amphibole fibers are 500 times more potent than chrysotile. (Tr. 1906:3-5 (Brody)). He explained this difference in fiber potency: "On a fiber-per-fiber basis what that means is you may need 500 chrysotiles for every amphibole." (Tr. 1906:6-8 (Brody)).

Other problems with Dr. Brody's testimony have been briefed extensively and will not be thoroughly rehashed here. See Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2981) (hereafter, "Debtors' Motion to Strike Medical Experts"), Debtors' Brief in Support of Its Motion to Exclude or Strike Committee Medical Expert Witness Opinions (Docket No. 2982) (hereafter, "Debtors' Brief on Medical Experts"), and Debtors' Reply To Committee's Response And Opposition To Debtors' Motion To Exclude Or Strike Committee Medical Expert Witness Opinions (Docket No. 3204) (hereafter, "Debtors' Reply on Medical Experts"), (collectively, "*Daubert* Briefing on Medical Experts"); Witness Appendix, 14. Brody.

60. Dr. William Edward Longo holds a Ph.D. in engineering and material sciences.[282] Dr. Longo was offered as an expert in material science, electron microscopy and industrial hygiene as it relates to asbestos.[283] His company, Materials Analytical Services (MAS), an accredited laboratory, has examined more than 400,000 individual

[282] Hr'g Tr. 1426:21-22, 1427:6-12, July 29, 2013 (Longo); ACC-3645.

[283] Hr'g Tr. 1449:3-7, July 29, 2013 (Longo).

asbestos samples and performed a variety of tests on the levels of asbestos dust generated during the routine work practices of installation and removal of gaskets containing up to 80 percent asbestos.[284] The results of the MAS experiments on asbestos fiber release from working with gaskets were published in the peer-reviewed journal Applied Occupational Environmental Hygiene.[285] The MAS experiments, which were based upon the work practices described by pipefitters and performed by an actual steamfitter, demonstrated that the fabrication and removal of Garlock asbestos gaskets released asbestos fibers into the work environment at levels magnitudes higher than the background level of asbestos in the ambient air.[286] In addition to recording the levels of asbestos dust generated during the fabrication and removal of gaskets, MAS tested Garlock asbestos gaskets with a specialized testing protocol to determine their composition and found that, in addition to up to 80 percent chrysotile asbestos, the gaskets contained trace amounts of amphibole asbestos, between 100 and 150 million fibers per gram.[287]

RESPONSE: The Court reserved ruling on Debtors' *Daubert* motion challenging the admissibility of Dr. Longo's testimony. (Tr. 1448:18-14 (Longo)).

The number of asbestos samples Dr. Longo's lab has examined is irrelevant, especially given the serious quality control problems the lab has had over the years. *See* Witness Appendix, 11. Longo at 10-16; *Daubert* Briefing on Industrial Hygiene. And although results from a couple of the "MAS experiments on asbestos fiber release from working with gaskets were published in [a] peer-reviewed journal" in 2002, the pertinent facts are as follows:

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[284] *Id*. at 1427:13-16, 1428:20-22, 1433:3-8, 1463:21-22, 1468:21-25.

[285] *Id*. at 1434:8-19.

[286] *Id*. at 1454:14-16; 1465:1-14, 1474:13-20, 1475:6-13, 1503:12-1505:19.

[287] *Id*. at 1484:5-10, 1485:1-7, 1489:1-11.

1. There is no dispute that at least some of those results were absolutely wrong, and those errors were not disclosed to the editor of the journal. (Tr. 1587:10-1588:19 (incorrect reporting of pump calibration), 1593:15-1602:15 (eight background samples as reported in the published paper are incorrect) (Longo)).
2. There is no dispute that the published experiments were not "performed by an actual steamfitter," but by Dr. Longo himself, who has no real world experience using asbestos gaskets or packing in the workplace, no real world experience observing others use gaskets or packing in the workplace, and no real world experience taking air samples of work with asbestos products in the workplace. (Tr. 1551:25-1552:15 (Longo)).
3. There were other quality control problems with the published tests that prompted Dr. Longo's colleague, Mr. Hatfield, to believe additional studies needed to be conducted to fix the problems. (Tr. 1619:7-21 (Longo)).
4. Dr. Longo has not since published anything in the peer-reviewed literature with respect to gaskets and packing. (Tr. 1621:3-7 (Longo)).

Dr. Longo's experiments did not use proper methods of gasket removal or fabrication. For a summary of the myriad of unrealistic gasket removal methods, see Witness Appendix, 11. Longo at 2-9; for more detailed discussion, see Debtors' Brief on Industrial Hygiene Experts at 10-15, Debtors' Reply on Industrial Hygiene Experts at 13-19. Dr. Longo did not even attempt to simulate real world methods in his fabrication experiment, instead opting to see if he could detect some fibers from hammering out four gaskets in twenty-two minutes. (Tr. 1581:4-

1582:12 (Longo)). Mr. Shoemaker explained that this was not done in the real world. (Tr. 1702:4-14 (Shoemaker); *see also* Response to Proposed Finding of Fact # 61, below).

The Court should give no weight to the "trace amounts of amphibole asbestos" Dr. Longo supposedly found in Garlock's chrysotile gaskets. As an initial matter, Dr. Longo admits that these levels are at "ultra trace" levels, so the proposed finding's allusion to 100 to 150 million fibers per gram is meaningless. (Tr. 1613:7-13 (Longo)). And as a matter of credibility, Dr. Longo's report of finding at least one of the amphibole fibers was an error, and some of the amphiboles were not "discovered" until about ten years after the test was first conducted (not until after the Committee engaged Dr. Longo in this case). (Tr. 1612:16-1613:6, 1614:12-19 (Longo)).

Many additional problems with Dr. Longo's testimony have been briefed extensively and will not be thoroughly rehashed here. *See* Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Expert Witness Opinions (Docket No. 2985) (hereafter, "Debtors' Motion to Strike Industrial Hygiene Experts"); Debtors' Brief in Support of Its Motion to Strike Committee Industrial Hygiene Witness Opinions (Docket No. 2986) (hereafter, "Debtors' Brief on Industrial Hygiene Experts"), and Debtors' Reply to the Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Witness Opinions (Docket No. 3210) (hereafter, "Debtors' Reply on Industrial Hygiene Experts"), (collectively, "*Daubert* Briefing on Industrial Hygiene"); Witness Appendix, 11. Longo.

61. James Harold Shoemaker is a certified Nuclear Designer with a Bachelor of Science Degree in Engineering Technology. In July of 2013, Mr. Shoemaker retired from

his position as a nuclear ship consultant for the United States Navy.[288] Mr. Shoemaker has over fifty years of experience working at two of the largest shipyards in this country, the Newport News Shipyard and the Norfolk Naval Shipyard, as a welder helper, a sheet metal helper, a senior nuclear designer, a Chief Scheduler, a Superintendent of the Sheet Metal Department, a Pipefitter Superintendant, a Project Superintendent, and Production Manager.[289] Mr. Shoemaker was recognized by this Court as an expert in the work methods, tools and materials used for the fabrication, removal, replacement and cleanup of gaskets and insulation on naval ships, the sequencing of work during the construction and overhaul of naval Ships, and the safety procedures, controls and/or regulations pertaining to asbestos gaskets and insulation on naval ships from the 1960s through the 1990s.[290] Mr. Shoemaker testified about his experience observing and supervising thousands of shipyard workers who fabricated, installed and/or removed asbestos-containing sheet gaskets and packing, the sequencing of activities that would take place during the overhaul of Naval vessels, as well as the safety controls and regulations pertaining to asbestos gaskets and insulation.[291] He confirmed that Dr. Longo's videotapes depicting the tools and methods pertaining to the fabrication and removal of asbestos sheet gaskets were substantially similar to the ways in which asbestos gaskets were fabricated and removed by real-world workers in the shipyard and aboard ships during overhauls.[292]

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[288] Hr'g Tr. 1634:8-16, 1636:3-20, July 29, 2013 (Shoemaker); ACC-3781.

[289] Hr'g Tr. 1637:12-1641:14, July 29, 2013 (Shoemaker); ACC-3781, ACC-5063(a).

[290] Hr'g Tr. 1648:12-1649:1, 1651:8-1652:13, July 29, 2013 (Shoemaker).

[291] *Id.* at 1641:19-1648:11, 1669:13-1670:25, 1685:3-1688:5.

[292] *Id.* at 1671:10-14, 1679:3-11.

RESPONSE: The Committee mischaracterizes Mr. Shoemaker's testimony regarding whether Dr. Longo's videos depicted real-world common work practices. The Committee ignores Mr. Shoemaker's testimony that the worker removing a gasket by "taking the putty knife and jamming it into the flange to remove the adhered gasket material" is something Mr. Shoemaker would "prefer he not do," and that if he "ran into [the worker] shipboard doing that, I might say hey mate. What's going on here?" (Tr. 1678:1-14 (Shoemaker)). Mr. Shoemaker also testified that the 11,000 rpm electric grinders Dr. Longo used to remove gaskets were not used by workers in the shipyard, who used pneumatic grinders with much lower rpm, about 3,000 to 4,500. (Tr. 1699:13-16, 1711:11-15 (Shoemaker)).

The Committee's proposed finding also ignores Mr. Shoemaker testimony which discredits the methods shown in the video of Dr. Longo's gasket fabrication experiment. First, Mr. Shoemaker explained that "tapping out a gasket" with a ball peen hammer was only "occasionally" done, in "onesies and twosies." (Tr. 1669:13-1670:10 (Shoemaker)). This was not "the preferred method." (Tr. 1671:1-9 (Shoemaker)). Mr. Shoemaker testified that "the preferred method" was for the worker to get the gasket he needed "from the gasket room, which is mostly what people did" because the gasket room workers who made gaskets in bulk had them pre-packaged for the pipefitter to take to the ship. (Tr. 1669:13-1670:10 (Shoemaker)). Second, Mr. Shoemaker explained that Dr. Longo's experiment of pounding out four gaskets in a row in the span of 22 minutes would not be done in the real world. (Tr. 1702:9-14 (Shoemaker)). And workers would not, as Dr. Longo did, be cutting the whole gasket by hammering on it until the flange edges force the gasket material apart. (Tr. 1702:15-1703:1 (Shoemaker)).

In addition, Mr. Shoemaker's testimony confirms that the assumptions underlying Mr. Henshaw's plausible upper bound for gasket exposures was conservative. (Compare Tr.

1700:10-15, 21-24 (Shoemaker) (more than half of the gaskets in a ship's engine room were not compressed asbestos sheet gaskets) with Tr. 847:12-15 (Henshaw) (assumed all gaskets were compressed asbestos sheet); compare Tr. 1700:16-20 (Shoemaker) (an individual pipefitter might remove 250-300 gaskets per year) with Tr. 845:9-18 (Henshaw) (assumed a pipefitter would remove 750 gaskets per year)).

For a more detailed description of how Mr. Shoemaker's testimony corroborated the testimony of Debtors' experts, see Witness Appendix, 12. Shoemaker.

62. Philip John Templin is a Certified Industrial Hygienist with a Master of Science degree in public health.[293] Asbestos has been an area of interest for him from the very first weeks of graduate school and throughout his professional career.[294] The Court accepted Mr. Templin as an expert in industrial hygiene.[295] Initially, Mr. Templin discussed the history of industrial hygiene as it related to protecting workers from exposures to asbestos.[296] Mr. Templin next compared the level of asbestos in the background ambient air with the levels of asbestos generated during the fabrication and removal of gaskets.[297] Finally, Mr. Templin testified about the mandatory industrial hygiene procedures currently in force for any work with an asbestos gasket that is deteriorated and unlikely to be removed intact.[298] In addition, the worker performing these tasks must be attired in full-body protective coveralls with respiratory protection.[299]

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[293] Hr'g Tr. 1727:25-1728:25, July 30, 2013 (Templin); ACC-3251.

[294] Hr'g Tr. 1730:9-14, July 30, 2013 (Templin).

[295] *Id.* at 1733:8-17.

[296] *Id.* at 1732:16-24, 1733:19-1734:21.

[297] *Id.* at 1748:1-1750:15, 1752:2-1753:13.

[298] *Id.* at 1761:21-1763:2.

[299] *Id.* at 1759:24-1761:20.

RESPONSE: The Court reserved ruling on Debtors' *Daubert* motion challenging the admissibility of Mr. Templin's testimony. (Tr. 1733:1-7 (Templin)).

Although Mr. Templin claims a long-held "interest" in the area of asbestos industrial hygiene, his opinions are not grounded in science. (*See* Witness Appendix, 13. Templin, at 3). In 2002, the same year he joined Dr. Longo's company, Mr. Templin was hired as a plaintiff's expert and provided "a fairly large collection of documents" that had been annotated by the plaintiff's firm Waters and Kraus. (Tr. 1769:25-1771:11 (Templin)). Mr. Templin's opinions on asbestos, including the data points he cited to the Court, are based on a "subset" of these annotated documents, documents with which he was unfamiliar before Waters and Kraus gave them to him. (Tr. 1769:25-1771:20 (Templin)). He has never attempted to update this research or conduct any systematic review of the literature to determine whether he is reciting the complete body of industrial hygiene. (Tr. 1769:8-14, 1771:12-16 (Templin)).

Mr. Templin has no real-world experience observing or monitoring uncontrolled work with insulation, and no experience monitoring people for asbestos exposure from work with gaskets and packing, never having seen these products used in the workplace. (Tr. 1766:7-21, 1767:18, 1776:18-1777:1 (Templin)). The only material he has published in the peer-reviewed literature is a letter to the editor he wrote on behalf of MAS that was co-signed by other people associated with MAS, including Dr. Longo. (Tr. 1768:1-18 (Templin)).

The cited discussion of "the history of industrial hygiene as it related to protecting workers from exposures to asbestos" was largely a discussion of the Merewether and Price article, which addressed asbestos exposures in textile factories and only mentioned gaskets and packing exposures in the manufacturing context. (Tr. 1792:13-24 (Templin)). Exposures at levels experienced in these contexts are irrelevant in this case, which concerns end user activities

with gaskets and packing. Moreover, Mr. Templin acknowledged that the first article that appeared in the literature which he claimed expressed a concern with the use of asbestos gaskets and packing was an article by PG Harries in 1968. (Tr. 1792:25-1793:5 (Templin)). Mr. Templin conceded that Harries later published in 1971 that compressed asbestos gaskets and packing posed "[n]o health hazard in forms used in shipyard applications." (Tr. 1794:20-1795:2 (Templin)). Dr. Selikoff published the same conclusion that gaskets and packing posed "[n]o health hazard" in 1978. (Tr. 1795:13-15 (Templin)).

Mr. Templin's testimony about "the levels of asbestos generated during the fabrication and removal of gaskets" was mainly a recitation of "worst case scenario" data points generated from atypical work activities. (*See* Witness Appendix, 13. Templin, at 3-4 (explaining the problems with various handwritten sample sheets cited by Mr. Templin)). His "comparison" of the number of these levels to ambient levels was nothing more than a multiplication of numbers of fibers, and is not proper methodology used by industrial hygienists to conduct exposure assessments (even assuming the cited testimony here was comprehensible). Comparing numbers of fibers does not give any consideration to OSHA's short term or long term exposure limits, which were established as safe limits using the precautionary principle. (Tr. 816:22-817:5 (Henshaw); Tr. 4384:7-4385:6 (Anderson)). It does not give any consideration to the body's defense mechanisms, which work to clear asbestos from the body. (Tr. 965:10-972:15 (Weill)). And it fails to address the salient question of whether a worker's exposure to asbestos from gaskets and packing is significant in the context of the worker's total exposure to asbestos from all sources, including thermal insulation.

Other problems with Mr. Templin's testimony have been briefed extensively. *See* Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Expert Witness Opinions

(Docket No. 2985) (hereafter, "Debtors' Motion to Strike Industrial Hygiene Experts"); Debtors' Brief in Support of Its Motion to Strike Committee Industrial Hygiene Witness Opinions (Docket No. 2986) (hereafter, "Debtors' Brief on Industrial Hygiene Experts"), and Debtors' Reply to the Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Witness Opinions (Docket No. 3210) (hereafter, "Debtors' Reply on Industrial Hygiene Experts"), (collectively, "*Daubert* Briefing on Industrial Hygiene"); Witness Appendix, 13. Templin.

B. Garlock's Manufacture and Sale of Asbestos Products

63. For many years, Garlock sold asbestos-containing industrial sealing products and related materials and other asbestos-containing products, including gaskets, gasket materials and compression packing. Garlock first produced and sold asbestos-containing gaskets, compressed asbestos sheets, and packing in 1907. It sold asbestos-containing packing until 1982 and asbestos-containing gaskets until 2001.[300]

64. Garlock sold rolls or sheets of asbestos gasket material to both distributors and end-use customers who cut out gaskets.[301] Garlock also sold pre-cut asbestos gaskets for various applications, such as gaskets for use in various models of boilers.[302]

65. In addition to gaskets and gasket material, Garlock sold asbestos packing in coils, spirals, and rolls.[303] Garlock also sold loose asbestos packing, a shredded asbestos material packaged in cans.[304]

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[300] For example, Garlock made asbestos-containing tape, expansion joints, hydraulic components, and asbestos cloth. Heffron Dep. 23:14-23, 70:4-9, 120:2-11, 123:4-22. Nov. 13, 2012; ACC-68 at GST-EST-0108977-78; ACC-515, at 10-11; ACC-69.

[301] A gasket is a static mechanical seal that joins two or more mating surfaces, such as flanges where pipes connect, or where a pipe connects to equipment such as a valve or pump.

[302] Heffron Dep. 198:15-199:22, Nov. 13, 2012.

RESPONSE: The vast majority of the asbestos packings Garlock sold were made with braided asbestos yarn. Garlock did not sell "shredded" asbestos in cans. The testimony of James Heffron cited refers to his discussion of a product described in a catalogue called Plastallic packing, which was a mixture of asbestos and other materials. The catalogue described the product as follows: "Garlock Plastallic Packings are soft and readily formable. Every style is scientifically compounded with pure asbestos, special lubricants and binders, and graphite or mica." As the catalogue further provides, the composition or copper foils that the Plastallic packing was made with was shredded. The asbestos was not shredded. (11/13/2012 Heffron Dep. at 201:14-204:24; ACC-0011).

66. Many Garlock products consisted of as much as 85 percent asbestos; most were of the chrysotile variety, but some Garlock products contained crocidolite asbestos.[305] In general, Garlock's products were prominently branded.[306] Garlock's gaskets and packing bore no warnings concerning the dangers of asbestos until 1977.[307]

RESPONSE: The vast majority of Garlock's asbestos products were made with chrysotile asbestos. Crocidolite accounted for "about 1% of our total purchases." (11/13/2012 Heffron Dep. at 153:22-154:4).

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[303] Packing generally refers to material that forms a seal between a static component and a moving part, like a valve stem or drive shaft.

[304] Heffron Dep. 203:5-204:9, Nov. 13, 2012.

[305] ACC-69. Asbestos insulation products often contain lower percentages of asbestos. Hr'g Tr. 1469:1-1470:1, July 29, 2013 (Longo).

[306] ACC-68 at GST-EST-0108980. *See, e.g.*, Hr'g Tr. 1393:5-18, July 26, 2013 (Magee) (noting that the conspicuous branding of Garlock's products).

[307] ACC-68 at GST-EST-0108970.

67. Garlock's asbestos-containing gaskets and packing were sold widely to commercial, industrial and government entities that used those products to seal fluids and gases in pipes, valves, pumps, boilers, engines, and other mechanical devices.[308]

68. Industrial customers included petrochemical facilities, shipyards, steel mills, chemical plants, breweries, mining operations, and waste and water treatment plants.[309] These customers used Garlock products in, among other settings, steam lines, boilers, compressors, refrigeration equipment, engine heads, and fluid conduits.[310]

69. Garlock products were widely used by the US Navy. For example, Garlock was one of the main manufacturers of asbestos sheet gaskets commonly used at the Norfolk Naval Shipyard and the Newport News Shipyard.[311] The Navy required asbestos-containing sheet gaskets to be used in association with numerous shipboard systems including but not limited to low pressure steam systems, sea water systems, and fuel systems.[312] Spiral wound gaskets, or "Flexitallic" asbestos gaskets were typically used in connection with high pressure steam systems and hot water systems.[313] The gaskets typically specified for use aboard naval ships, however, were asbestos sheet gaskets used on low pressure steam systems (300 psi and below).[314]

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[308] *See, e.g.*, ACC-254 (EnPro Indus., Inc. 2003 10-K) at 23-24; ACC-149 (EnPro Indus., Inc. 2007 10-K) at 7.

[309] Heffron Dep. at 49:23-50:2, 60:24-61:12, 138:18-140:16, 143:25-144:17, Nov. 13, 2012; ACC-75; ACC-80.

[310] ACC-68 at GST-EST-0108978; ACC-80.

[311] Hr'g Tr. 1668:5-22, July 29, 2013 (Shoemaker).

[312] *Id.* at 1641:19-1642:22.

[313] *Id.* at 1663:7-21.

[314] *Id.*

RESPONSE: The testimony cited does not support the claim that most gaskets used on Naval ships were compressed asbestos sheet gaskets as the Committee claims. In fact, the evidence at trial was to the contrary. Captain Wasson researched the military specifications and standards relating to the use of gaskets and packing. He explained that the Mil-Standard 777 specified what types of valves, fittings, and gaskets were to be used on surface ships. The standard allowed for the use of compressed sheet gaskets on only one of eleven types of steam systems. The other ten systems required spiral wound gaskets. (Tr. 182:23-25 (Wasson)). Additionally, only 12 of the 62 total systems allowed compressed asbestos sheet gaskets at all, and some of those also allowed an alternative (non-asbestos) gasket to be used. (Tr. 183:1-19 (Wasson)).

70. Approximately 40 to 50 percent of the gaskets found in the engine rooms aboard naval ships consisted of asbestos sheet gaskets.[315]

RESPONSE: Mr. Shoemaker did say this, but he did not base this estimate on any research. In contrast, Captain Wasson had reviewed the military specifications and standards carefully. He explained that the Mil-Standard 777 specified what types of valves, fittings, and gaskets were to be used on surface ships. The standard allowed for the use of compressed sheet gaskets on only one of eleven types of steam systems. The other ten systems required spiral wound gaskets. (Tr. 182:23-25 (Wasson)).

71. As a result of the extensive distribution of Garlock products, individuals in a variety of occupations were exposed to Garlock asbestos-containing products, such as pipefitters, millwrights, shipwrights, boilermakers, and machinists.[316]

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[315] *Id*. at 1663:7-1664:16.

[316] Grant Dep. 200:4-8, Nov. 1, 2011; Hr'g Tr. 1473:18-1474:3, July 29, 2013 (Longo).

RESPONSE: Individuals in these occupations may have worked with Garlock products or in areas where Garlock products were used. But Debtors contest that their work resulted in any significant asbestos exposure from Garlock's products.

72. Individuals were exposed to asbestos fibers from Garlock products in different ways. Fibers were released from Garlock products when the products were cut or manipulated during installation, or as they were removed during maintenance.[317]

RESPONSE: For the reasons explained in Garlock's *Daubert* motion challenging the reliability of Dr. Longo's testimony to which the Committee cites to support this proposed finding is not reliable. The evidence Debtors presented from Mr. Liukonen, Mr. Boelter, and Mr. Henshaw demonstrates that work with gaskets and packing results in very low exposures, if any at all. This evidence and is consistent with the view expressed in Dr. Selikoff's book Asbestos and Disease that gaskets and packing pose no health hazard.

73. For example, asbestos fibers were released during the removal and installation of gaskets on Navy ships at Norfolk Naval Shipyard.[318] During maintenance of shipboard pipes and valves, gaskets had to be replaced. The exposure first occurred as old gaskets were removed from pipe flanges and valves. After the flange was separated, the old gasket had to be removed.

RESPONSE: The testimony of Mr. Shoemaker cited by the Committee says nothing about asbestos fiber release and did not address exposures. Mr. Shoemaker is not an industrial hygienist and does not claim to have expertise regarding asbestos fiber release. (Tr. 1716:17-1717:4 (Shoemaker)).

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[317] Hr'g Tr. at 1474:13-1475:13, 1514:11-24, July 29, 2013 (Longo).

[318] Hr' g Tr. 1652:15-1679:11, July 29, 2013 (Shoemaker).

74. In many cases, the old gasket would be dried out and firmly stuck to the seating areas of the flange, such that removal required cleaning with a power-driven wire brush, as well as scraping with a variety of tools.[319]

RESPONSE: Power-driven equipment was not required, as claimed. Captain Wasson explained that he never saw someone use an electric wire brush to remove a gasket. (Tr. 220:5-13 (Wasson)). Even the Committee's experts and Roger Beckett, who was the chief industrial hygienist for the Puget Sound Naval Shipyard, and Mr. Shoemaker testified that they never saw someone use a power grinder like those used in Dr. Longo's experiments to remove a gasket. (Tr. 1699:13-16 (Shoemaker); Beckett Dep. 105:16-23, May 9, 2013).

Further, the reliable industrial hygiene studies show that when a flange face is cleaned with an electric wire brush, the asbestos exposure, if detectible at all, is very low. (*See, e.g.*, Tr. 546:11-548:5 (Liukonen); 553:21-554:1 (Liukonen)).

75. The removal process produced dust, particularly during wire-brushing.[320] Re-assembling the flange required the fabrication and installation of a new gasket. In most cases, the worker cut the new gasket from rolls of sheet gasket material. The worker cut the sheet and placed it against the flange to mark the bolt holes and flange openings. Bolt holes were cut out with punches and knives were used to cut out the flange openings.[321]

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[319] Hr'g Tr. 1671:15-1673:13, July 29, 2013 (Shoemaker); Borgen Dep. 40:22-23, 41:3-12, June 1, 2000; Hyder Dep. 25:18-26:5, 26:6-7, 10, 28:5-12, 28:15-21, Mar. 15, 2000 (Vol. 1); Isaacs Dep. 100:21-101:7, June 1, 2000; Maney Dep. 43:21-45:9, May 9, 2001.

[320] Hr'g Tr. 1647:17-25, July 29, 2013 (Shoemaker).

[321] Hr'g Tr. 1669:13-1671:14, July 29, 2013 (Shoemaker).

This process of cutting and installing a new gasket also could also produce substantial amounts of asbestos-containing dust.[322]

RESPONSE: All reliable testing has demonstrated that wire-brushing does not produce significant fiber release. (Tr. 550:16-555:18 (Liukonen)). The Committee misstates the evidence about common gasket fabrication methods, claiming "[i]n most cases" the worker would make gaskets one at a time by placing a sheet "against the flange to mark the bolt holes and flange openings," then cutting the sheet with punches and knives. Mr. Shoemaker explained "you would occasionally see that done if a pipefitter had to make one gasket that he needed one gasket, onesies and twosies." (Tr. 1669:21-24 (Shoemaker)). He further testified, "[t]he preferred way to do it was to make the gaskets in bulk," which Mr. Shoemaker said was done by the gasket room workers who made gaskets by the "thousands" and packaged them for pipefitters to "get them from the gasket room, which is mostly what people did." (Tr. 1669:24-1670:12 (Shoemaker)).

Dr. Longo did not test this "preferred method" of secondary manufacturing. Instead, Dr. Longo hammered out four gaskets in the span of 22 minutes, using the edge of the flange to force the gasket apart. (Tr. 1581:16-1582:12 (Longo)). This is not how workers fabricated gaskets. (Tr. 1702:15-1703:1 (Shoemaker)).

76. Asbestos fibers can cause a variety of illnesses. These include non-cancerous lung diseases (called "non-malignant" diseases), and cancers such as mesothelioma. Non-

[322] Hr'g Tr. 1671:10-14, July 29, 2013 (Shoemaker); Hr'g Tr. at 1472:22-1475:19, July 29, 2013 (Longo).

malignant diseases include, for example, asbestosis, a pulmonary insufficiency caused by destruction of the air sacs in lung tissue.[323]

RESPONSE: It is true that a variety of illnesses have been associated with various minerals that are identified by the commercial term asbestos. As discussed elsewhere on the issue of relevance to gaskets, it is the "consensus of the medical community [is] that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody). Scientifically reliable evidence does not establish that chrysotile fibers are the causative agent in mine dust, although some believe very high-doses of chrysotile, not other contaminants like tremolite, may be the mesothelioma-causing agent in the few chrysotile populations with extremely high exposures. (Tr. 1056:25-1067-6 (Weill)).

77. Mesothelioma is a rare form of cancer in which cancerous cells are found in the mesothelium, a protective sac that covers most of the body's internal organs.[324] Mesothelioma generally kills victims within two years of diagnosis.[325] The latency period for mesothelioma is 35 years.[326]

78. Unlike many other cancers, for which there are multiple, well-documented causal factors, mesothelioma is uniquely associated with asbestos exposure.[327] Mesothelioma is caused by both chrysotile and amphibole forms of asbestos.[328]

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[323] *In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. 710, 739-40 (E. & S.D.N.Y. 1991), *judgment vacated on other grounds by* 982 F.2d 721 (2d Cir. 1992).

[324] Hr'g Tr. 1837:19-1838:4, July 30, 2013 (Brody).

[325] *In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. at 740; Hr'g Tr. 1866:4-7, July 30, 2013 (Brody).

[326] Hr'g Tr. 355:23-356:5, July 23, 2013 (Garabrant); Hr'g Tr. 469:15-18, July 23, 2013 (Sporn); Hr'g Tr. 1083:9-14, July 25, 2013 (Weill).

[327] Hr'g Tr. 1971:2-11, July 30, 2013(Brodkin).

[328] Hr' g Tr. 2104:7-2105:19, July 31, 2013 (Welch).

RESPONSE: This proposed finding is not correct. As discussed elsewhere on the issue of relevance to gaskets, it is the "consensus of the medical community [is] that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody). Scientifically reliable evidence does not establish that chrysotile fibers are the causative agent in mine dust, although some believe very high-doses of chrysotile, not other contaminants like tremolite, may be the mesothelioma-causing agent in the few chrysotile populations with extremely high exposures. (Tr. 1056:25-1067-6 (Weill)). As with many cancers, mesothelioma can occur for reasons that are unknown. The rate of spontaneous or idiopathic mesothelioma can be as high as 20-40% in men and 50% in women. (Tr. 309:14-21 (Garabrant)).

C. Garlock's Asbestos Litigation History

79. Asbestos litigation began in the mid-1970s. Litigation initially focused on large asbestos suppliers and insulation companies who had stopped manufacturing and selling asbestos-containing products in the 1970s, most notably Johns-Manville.[329] Other defendants were able to remain in a peripheral role while Manville took the lead defending and settling cases.[330]

80. In 1982, less than a decade after the litigation began, Manville filed for bankruptcy.[331] When Manville filed for bankruptcy, plaintiffs began to focus their efforts elsewhere, developing the case against other defendants.[332]

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[329] Hr'g Tr. 3420:11-3421:19, Aug. 6, 2013 (Hanly); Hr'g Tr. 3539:15-3540:4, Aug. 7, 2013 (Rice); Hr'g Tr. 3478:10-14, Aug. 7, 2013 (McClain); Hr'g Tr. 3796:13-20, Aug. 8, 2013 (Hanly).

[330] Hr'g Tr. 3431:25-3433:19, 3426:13-3427:22, Aug. 6, 2013 (Hanly).

[331] Hr'g Tr. 3426:13-16, Aug. 6, 2013 (Hanly).

81. Additional asbestos bankruptcies then occurred throughout the 1980s and 1990s, including those of Raybestos Manhattan, Celotex, Eagle Picher, and Keene.[333] As these defendants filed for bankruptcy, a newer generation of peripheral defendants became the focus of litigation.[334] The early 2000s saw this cycle continue, with bankruptcies such as Owens Corning, U.S. Gypsum, and Babcock & Wilcox.[335]

82. Meanwhile, the nature of asbestos claims was changing. In the 1990s, claims by individuals suffering from non-malignant asbestos diseases predominated. As the exposed population aged, however, the type of claimant changed. Many individuals who had been exposed to massive amounts of asbestos-containing material as insulators began to die off. The exposure profile of the claimant population changed somewhat over time.[336]

83. Courts also began to adopt various measures to limit non-malignant claims, such as moving malignant cases ahead in the trial queue.[337] As a result, throughout the 2000s, asbestos litigation began to focus increasingly on mesothelioma claims.[338] Today, mesothelioma and other cancer claims predominate in asbestos litigation.[339]

84. Garlock was first named in an asbestos personal injury case in 1975.[340] When Manville filed for bankruptcy in 1982, Garlock joined other defendants in an

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[332] Hr'g Tr. 3540:5-8, Aug. 7, 2013 (Rice).

[333] Hr'g Tr. 3426:2-12, Aug. 6, 2013 (Hanly).

[334] *See In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. at 747.

[335] Hr'g Tr. 3431:21-3435:9, Aug. 6, 2013 (Hanly).

[336] Hr'g Tr. 3472:4-3473:24, Aug. 7, 2013 (McClain).

[337] Hr'g Tr. 3550:25-3551:15, Aug. 7, 2013 (Rice).

[338] Hr'g Tr. 3551:11-15, Aug. 7, 2013 (Rice).

[339] *Id.*

[340] ACC-19 (EnPro Indus., Inc. 2005 10-K) at 30. Garlock was involved in the *Borel* case, the first appellate decision to apply strict products liability in tort to asbestos claims. Hr'g

unsuccessful motion to have asbestos litigation around the country stopped because Manville had been bearing the majority of defense costs and settlement outlays, to the advantage of less prominent defendants, but was no longer participating in the litigation by virtue of the automatic stay.[341] By the early 1990s, Garlock was being sued by more than 20,000 asbestos claimants annually.[342] Nevertheless, throughout the 1980s and well into the 1990s, Garlock was able to remain as a peripheral defendant.[343]

RESPONSE: This is a revisionist, and incorrect, reading of Garlock's litigation record. The inference the Committee makes is that the plaintiffs' bar gave Garlock a "free ride" during the 1990s, never going to trial against Garlock. But other portions of the proposed finding undercut that notion. At the same time, the Committee tries to suggest that Garlock had a "free ride," it seeks a finding that Garlock was a prominent defendant as early as 1982, who had to react to the Johns Manville bankruptcy. The proposed finding further contradicts the free-ride theory by pointing out that Garlock faced tens of thousands of claims a year in the 1990s.

Committee witness Paul Hanly, who described free-riding by other defendants, was forced to admit that, in contrast to the companies he represented, Garlock was far more active in litigation—trying to verdict more than 150 cases in the 1990s alone compared to the less than 10 cases the Turner & Newall companies tried to verdict in their history. (Tr. 3813:18-25 (Hanly) (acknowledging Garlock tried more than 150 cases to verdict in 1990s, while Turner & Newall tried less than 10)). Garlock's success was not by virtue of a free ride. Its success was due to the fact that it had access to the information that showed juries its products did not cause disease.

Tr. 81:24-82:13, Mar. 3, 2011 (Glaspy). *See Borel v. Fibreboard Paper Prods. Corp.*, 493 F.2d 1076 (5th Cir. 1973).

[341] Hr'g Tr. 3426:13-3427:22, Aug. 6, 2013 (Hanly); ACC-343.

[342] ACC-14 at GST-EST-120780.

[343] Hr'g Tr. 3876:8-21, Aug. 8, 2013 (Peterson).

(Tr. 2571:9-21 (Magee) (describing 92% trial success when Garlock had access to evidence); Tr. 2240:5-2241:5 (Turlik) (describing trial success above 90% and that plaintiffs acknowledged exposures); Tr. 4540:18-4541:5 (Glaspy) (describing trial success)).

85. Garlock's experience changed in the late 1990s and early 2000s. Around this time plaintiffs began to develop the liability case against Garlock by, for example, using experts to explain how Garlock's products emitted asbestos fibers.[344]

RESPONSE: With this finding, the Committee attempts to rewrite the events of Garlock's litigation experience. For instance, the Committee's own claims estimation expert, Dr. Peterson, has provided opinions in other asbestos bankruptcy cases that the driving force behind increased claim values in the 2000s was the Bankruptcy Wave, not some efforts to "develop the liability case."

In Garlock's experience, the nature of the scientific evidence plaintiffs offered at trial did not change between the 1990s, when settlement values were low, and the 2000s, when settlement values were high. The plaintiffs' bar's case against Garlock was based on false inferences and junk science long before the Bankruptcy Wave, just as it was after the Bankruptcy Wave. (Tr. 2565:6-2567:21 (Magee)). That junk science included a video in the 1990s Dr. Longo contrived to demonstrate with Tyndall lighting that brushing gasket residue from a pipe flange causes fiber release. (Tr. 2567:14-2568:1 (Magee)). The most significant change between the period before the Bankruptcy Wave and after was that "the ocean [of plaintiffs' alternative exposures] shrunk, even disappeared in some cases." (Tr. 2571:13-16 (Magee)). That is, the most significant thing was not having the evidence of the "ocean" of other products that plaintiffs had previously acknowledged when those manufacturers were still in the tort system.

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[344] Hr'g Tr. 3874:9-22, Aug. 8, 2013 (Peterson); Mahoney Dep. 50:12-53:18, Feb. 26, 2013; Hr'g Tr. 3793:10-3796:3, Aug. 8, 2013 (Hanly).

Indeed, the testimony the Committee cites does not support the point. Dr. Peterson describes a process of an "improved case" but gives no evidence as to what that entailed and how the case was improved. Likewise, Mr. Hanly said there was a new "focus" on gasket products (Tr. 3793:10-3796:3 (Hanly)), but never specified what he meant and how it impacted cases. Mr. Hanly, has not been involved in asbestos litigation since the Bankruptcy Wave and did not observe any cases thereafter (Turner & Newall filed as part of the Bankruptcy Wave). He was in no real position to describe a "focus" by plaintiffs having any impact on settlements in the middle to late 2000s.

By contrast, attorneys who were involved in asbestos litigation during the 2000s explained that the change they saw was a change in the identification of exposure evidence, not any "development" of science witnesses, new documents, or anything else. Mr. Turlik's cross-examination testimony, for instance, maintained that Garlock met the evidence plaintiffs' tried to use. But mesothelioma cases became a "more serious problem for Garlock in the 2000s" because Garlock's defense "was limited because of the lack of testimony of exposures." (Tr. 2411:17-22 (Turlik)).

Mr. Glaspy similarly said that witnesses who appeared in the 1990s and in the 2000s did not change anything. Dr. Longo and other industrial hygienists' testimony did not alter the course of cases. (Tr. 4542:24-4543:8 (Glaspy)). Plaintiffs had always used those witnesses "interchangeably"; "[w]e've done that since the mid-'80s to the present." *Id.* Mr. Glaspy explained Garlock quickly learned to address the Tyndall lighting video—showing courts it had "no scientific value," leading them to routinely exclude it. (Tr. 4543:13-25 (Glaspy)).

The deposition testimony from Mr. William Mahoney, one of Garlock's outside counsel, likewise does not support this notion. (Mahoney Dep. 50:12-53:18). His testimony was that "the

core components of plaintiffs [sic] case against Garlock basically remained the same throughout the litigation." (Mahoney Dep. 50:16-51:2, Feb. 26, 2013.) He acknowledged that some plaintiff attorneys presented testimony that was more directed to Garlock's products than the past, but also noted that those differences began in the late 1990s, not in the 2000s. (*Id.* at 51:3-20; 52:3-12.) He did not testify that the case improved or that Garlock's risk increased in any sense in the latter period due "development" of the case. Rather, the thrust of his testimony was that the plaintiffs' case, at its "core," was the same between the two decades. (*Id.* at 50:16-51:2.)

86. Garlock's prominence as an asbestos defendant began to increase. By the early 2000s, Garlock was receiving about 50,000 claims annually, including between 1,100 and 1,900 mesothelioma claims per year.[345] In addition, by the latter half of the 2000s, and consistent with the general trends noted above, mesothelioma claims predominated against Garlock.[346]

87. Mesothelioma claimants who sued Garlock asserted a range of causes of action under various state laws, such as strict products liability, failure to warn of the hazards of asbestos, and negligence.[347] They alleged that workers cutting and removing Garlock's asbestos-containing gaskets and packing were exposed to dangerous quantities of airborne asbestos fibers from those products, as were other workers in the workplaces where such activities took place.[348]

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[345] ACC-14 at GST-EST-120780; Hr'g Tr. 3901:1-15, Aug. 8, 2013 (Peterson); ACC-824a at 37.

[346] Magee Dep. 69:5-71:10, Jan 23, 2013.

[347] Hr'g Tr. 57-69, Feb. 17, 2011 (Simon); Hr'g Tr. 3458:24-3459:24, Aug. 7, 2013 (McClain).

[348] Hr'g Tr. 57-69, Feb. 17, 2011 (Simon).

88. Plaintiffs adduced at trial, among other things, that the dangers of asbestos products have been well-known since the 1930s. One of the first articles to address the potential hazards related to exposure to chrysotile asbestos was published in England in 1930 by Meriwether and Price.[349] Recognizing the potential danger associated with exposure to chrysotile asbestos, Meriwether and Price recommended that dust producing operations be enclosed or physically separated from the rest of the facility, that asbestos materials be wet down to suppress dust, that workers be supplied with respirators and, finally, that workers be educated so that they have an appreciation of the risk.[350] Among the processes identified by Meriwether and Price which, in 1930, were known to cause asbestosis are the sawing, grinding, and turning in a dry state packings and jointings.[351]

RESPONSE: The Committee misstates the historical record related to the safety of gaskets. The Meriwether and Price article dealt with manufacturing processes, not end use of gaskets or packing. (Tr. 1792:13-24 (Templin)). Historically, decades after Meriwether leading advocates for worker safety like Dr. Selikoff wrote these products pose "no health hazard in forms used in shipyard applications." (Tr. 1795:13-15 (Templin)).

89. Plaintiffs contended Garlock was well aware of the danger of asbestos. Employees of Garlock had attended meetings of the Asbestos Textile Institute ("ATI") in the mid and late 1950s where presentations were made regarding issue of asbestos and cancer of the lung.[352] Garlock was also aware of the particular risk of mesothelioma. At a

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[349] Hr'g Tr. 1732:16-24, 1733:19-1734:21, July 30, 2013 (Templin).

[350] *Id.* at 1735:3-22.

[351] *Id.* at 1736:24-1737:22.

[352] *Id.* at 1738:22-1739:25; ACC-3312; ACC-3313.

meeting of the ATI in 1969, it was acknowledged that the "asbestos hazard can be controlled except for mesothelioma."[353]

RESPONSE: Garlock was not a member of the ATI in the 1950s. An employee attended a meeting in 1956 to share information about dust control in Garlock's textile plant. The minutes from the meeting also reflect that asbestosis and lung cancer were discussed. (ACC-3312). The minutes from the other meeting cited by the Committee do not reflect an employee's attendance.

The Committee mischaracterizes the minutes from the 1969 ATI meeting. The language cited is not an acknowledgement by the ATI, but is a reference to a position that was taken in a draft USPHS document. (ACC-3315).

90. Garlock raised a variety of defenses to these claims. It maintained that it had no duty to warn; that the asbestos fibers in its products were "encapsulated" so that they did not emit dangerous quantities of fibers; that its asbestos-containing products contained mainly chrysotile, which Garlock alleged does not cause mesothelioma; and that plaintiffs' mesothelioma must be attributed to exposures to other asbestos products, such as insulation that Garlock did not manufacture or sell but that was present in the industrial settings where its products were used.[354] Garlock deployed these defenses consistently throughout the 1990s and 2000s.[355] The same "encapsulation," "chrysotile," and "low-dose" defenses are commonly asserted by other defendants still in the tort system.[356]

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[353] Hr'g Tr. 1744:2-1745:9, July 30, 2013 (Templin); ACC-3315.

[354] ACC-17 (2002 EnPro Indus., Inc. Form 10-K) at 16; ACC-18 (2004 EnPro Indus., Inc. Form 10-K) at 25; ACC-19 (2005 EnPro Indus. Inc., Form 10-K) at 31.

[355] Grant Dep. 128:11-129:25, 130:2-132:5, 132:7-133:5, 133:7-15, Nov. 1, 2011.

[356] *See* Hr'g Tr. 3464:7-20, Aug. 7, 2013 (McClain).

D. Garlock's Management of Asbestos Liability

91. Garlock resolved the overwhelming majority of claims consensually—by settlement or voluntary dismissal.[357] Although Garlock faced approximately 700,000 asbestos claims, Garlock tried only 245 cases to verdict, or less than 0.1 percent.[358] With respect to mesothelioma claims, Garlock faced more than 20,000 cases, but tried only 83 to verdict, less than one-half of one percent.[359]

92. As Garlock disclosed in its parent's annual reports, it considered various merits-based factors when entering into settlements, including the plaintiff's age and occupation; the jurisdiction where the action was brought; the presence of other possible causes of the plaintiff's mesothelioma; alternative sources of payment available to the plaintiff from co-defendants and section 524(g) trusts; the availability of legal defenses; and whether the action was an individual one or part of a group.[360] Garlock tried cases when they determined a settlement demand was not reasonable.[361] Before Garlock paid a settlement it required that the plaintiff provide both medical records confirming diagnosis of disease and evidence that he or she had worked with or around an asbestos product of Garlock.[362] When settling a case, Garlock did not pay to resolve more than its own several

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[357] Grant Dep. 172:25-173:12, Nov. 1, 2011; Garlock 30(b)(6) Dep. (Magee) 23:24-24:2, Jan. 24, 2013; Hr'g Tr. at 3208:7-11, Aug. 6, 2013 (Magee).

[358] Grant Dep. 172:25-173:12, Nov. 1, 2011; Hr'g Tr. 3889:2-7, Aug. 8, 2013 (Peterson).

[359] Hr'g Tr. 2918:22-2919:4, Aug. 5, 2013 (Bates).

[360] ACC-156 (EnPro Indus., Inc. 2006 10-K) at 34.

[361] ACC-254 (EnPro Indus., Inc. 2003 10-K) at 79; *see also* Hr'g Tr. 3204:1-3205:9, Aug. 6, 2013 (Magee).

[362] Magee Dep. 300:5-19, Apr. 11, 2013; Hr'g Tr. 3195:7-20, Aug. 6, 2013 (Magee); Hr'g Tr. 2363:23-2364:15, Aug. 1, 2013 (Turlik).

share of liability (and that of affiliated companies).[363] Consequently, in settlement, Garlock obtained releases for all affiliated companies, but not for unrelated companies.[364]

93. Garlock's settlement-based strategy allowed Garlock to maintain a low profile in the litigation throughout most of the 1990s.[365] As part of this strategy, Garlock often settled claims in groups.[366] For example, Garlock settled 81 percent of mesothelioma claims in groups in the period 1996 to 2000.[367] As plaintiffs began to develop the liability case against Garlock in the 2000s, Garlock relied even more on group settlements.[368] It preferred to settle early, that is, before devoting resources to investigating the details of claims.[369]

RESPONSE: The Committee's characterization of Garlock as having a "low profile" in the 1990s is contrary to the evidence. Garlock was not a low-profile defendant, but a *successful* defendant. Committee witness Paul Hanly tried to characterize Garlock as a low-profile defendant, but he was forced to admit at trial that Garlock's litigation profile, based on the number of cases it tried, was as significant as many other defendants, and perhaps more significant than Mr. Hanly's client, asbestos giant Turner & Newall. Turner & Newall only went to verdict a fraction of the number of times that Garlock did. (Tr. 3813:18-25) (Hanly) (acknowledging Garlock tried more than 150 cases to verdict in 90s, while Turner & Newall tried less than 10)).

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[363] Ferrell Dep. 145:22-146:17, Jan. 11, 2013.

[364] Grant Dep. 40:2-15, Nov. 1, 2011; Hr'g Tr. 3195:21-3196:2, Aug. 6, 2013 (Magee).

[365] Hr'g Tr. 3873:2-18, Aug. 8, 2013 (Peterson).

[366] ACC-19 (EnPro Indus., Inc. 2005 10-K) at 37.

[367] Hr'g Tr. 3880:12-21, Aug. 8, 2013 (Peterson); ACC-824a at 17.

[368] Hr'g Tr. 3880:22-3881:6, Aug. 8, 2013 (Peterson); ACC-824a at 17.

[369] Hr'g Tr. 2576:3-12, Aug. 1, 2013 (Magee); Hr'g Tr. 3196:7-16, Aug. 6, 2013 (Magee).

To underscore that plaintiffs' firms, contrary to the Committee's suggestion, were preoccupied with Garlock in the 1990s, the evidence at trial showed Garlock was in the cross-hairs of the Baron & Budd firm before the 2000s. The 1990s "Baron & Budd Script Memo," admitted at trial, showed that that firm targeted Garlock specifically in its asbestos cases. *See* Baron & Budd Script Memo) (GST-1270); *see also* Brickman Demonstrative Slides at 11-14 (GST-8007) (reviewing contents of Baron & Budd Script Memo)). The Script Memo was an internal memorandum Baron & Budd used to instruct witnesses on how to testify, irrespective of their knowledge and the facts, and instructed witnesses to identify Garlock. (Tr. 1164:6-1167:6 (Brickman) (describing contents of Baron & Budd Script memo); *see also* Tr. 1167:9-22 (Brickman) (explaining how Baron & Budd's practices deprive defendants of knowledge of plaintiffs' exposures)).

94. Settlement allowed Garlock to control its exposure to catastrophic verdicts. Garlock acknowledged this risk in securities filings, when it explained that the risk of adverse verdicts led it to use group settlements.[370]

RESPONSE: This finding ignores the evidence at trial including, in particular, the settlement history at the foundation of the Committee's and FCR's case. The evidence at trial showed that, throughout its history, Garlock resolved more than 80% of its cases for less than $25,000. (Tr. 1409:3-6 (Magee); Magee Demonstrative Slides at 23 (GST-8017)). The securities filing cited, upon examination, shows public discussion of how Garlock dealt with "driver" cases, where plaintiffs' firms inflated trial risk against Garlock through non-disclosure. (Tr. 1408:24-1409:2, 1410:18-23 (Magee)).

[370] **ACC-149 (EnPro Indus., Inc. 2007 Form 10-K) at 33.**

For instance, the cited exhibit at page 33 indicates that "the risk of large verdicts sometimes impacts implementation of the strategy and therefore it is likely that from time to time Garlock will enter into settlements that involve large numbers of cases." *See* ACC-149 at 33. Several case examples at trial showed how this phenomenon played out. In *Homa*, for instance, the Belluck & Fox firm withheld disclosure of Mr. Homa's exposures to bankrupt products during trial putting onto Garlock the "risk of high verdicts" the securities filing describes. (*See* Debtors' Appendix of Witness Trial Testimony at Tabs 8 & 17). Belluck & Fox used *Homa* to leverage a settlement of a "large number of cases" with Garlock. *Golini* and *Massinger* are other examples where the Shein Law Center withheld evidence, thereby creating risk in those cases that led to settlements of other cases. *Id.* Messrs. Magee, Turlik, and Glaspy testified that these kinds of risks did not arise in every case, but only in cases litigated by firms that used non-disclosure to inflate risk. (Tr. 3069:16-3072:11 (Magee); Tr. 2252:14-2252:25, 2257:21-2258:7 (Turlik); Tr. 4534:19-4537:9 (Glaspy); Glaspy Demonstrative Slides at 7 (GST-8024) (comparing firms' practices)).

95. Garlock's own internal assessments underscore its concerns about potentially adverse verdicts. Garlock's internal procedures for approving settlements involved the creation of a document called a "Major Expense Project Approval" form ("MEA") to memorialize the reasons for entering into the proposed settlement.[371] Internal procedures required that MEAs for individual and group settlements over certain thresholds be signed by senior management. The MEAs confirm Garlock was aware of and concerned about substantial adverse verdicts, and settlement was motivated by that concern. The MEAs

[371] ***See, e.g.,*** **ACC-754 at GST-EST-0556312.**

recognize that settling in groups eliminated these risks in a cost-effective way.[372] In other words, Garlock priced risk across batches of claims and sought to extinguish as many claims as possible with an eye to minimizing its overall cash outlays for asbestos matters.[373]

RESPONSE: This proposed finding is likewise not consistent with the evidence at trial. The privileged MEAs the Committee obtained (over Debtors' objections) do not support the substance of this finding. First, these MEAs were prepared for the handful of "driver"-type cases in which Debtors admitted that trial risk played a role in settlement decisions. Whatever risks existed in these cases did not exist in the vast majority of cases. As Debtors explained at trial, these were cases that drove up settlements and not at all like the vast majority of Garlock's settlements.

Second, the MEAs came from cases where settlement was inflated by the non-disclosure of material exposure evidence. Thus, by definition, the MEAs related to cases where trial risk was a factor. (Tr. 3059:9-15, 3059:22-3060:4 (Magee) (explaining that MEA was prepared after a settlement decision had been made for accounting purposes); *see also* Tr. 3057:14-3060:4 (Magee) (describing MEAs generally)). The MEAs do not support the notion that Garlock's purpose in settling *every* case was to resolve perceived, significant trial risk.

Furthermore, the MEAs, in function, were after-the-fact documents prepared for accounting documentation purposes that were not intended to provide full explanations of the reasons Garlock agreed to settle cases. (Tr. 3059:9-15 (Magee) (explaining that MEA was prepared after a settlement decision had been made and discussed internally)). Even these MEAs, from this select group of cases, frequently omitted to list any reasons for entering the settlement, while others cited reasons such as cost-avoidance. (*See, e.g.*, ACC-0754 at GST-

[372] ACC-341; ACC-754 at GST-EST-0556290.

[373] Hr'g Tr. 3122:21-3123:1, Aug. 5, 2013 (Magee).

EST-0556282 (financial terms mentioned, but no risk or other factors mentioned); ACC-0754 at GST-EST-0556286 (same); ACC-0754 at GST-EST-0556296 (settlement reduces cost), ACC-0754 at GST-EST-0556298 (dollars are saved by settlement)).

96. Garlock's inside and outside counsel were aware of the risk of adverse liability findings at trial, and weighed those risks carefully when settling cases.[374]

RESPONSE: Like other proposed findings, this finding ignores the evidence that, consistent with the Law and Economics model of litigants' settlement processes, Garlock considered the risks of adverse findings at trial, but cost avoidance drove settlement decisions. Testimony from Mr. Magee, Mr. Glaspy, and Mr. Turlik, the inside and outside counsel who testified at trial, showed that costs were driving force of settlements. Portions of Mr. Magee's testimony, for instance, included him explaining that: "[A]t all times – at all times, because of the number of claims, our focus had been on avoidable costs. That's what's driven our settlement strategy throughout, is avoiding costs to resolve claims." Likewise, Mr. Glaspy testified that costs, "[i]n a lot of cases, [was] the major factor." (Tr. 4664:3, 4664:16 (Glaspy)). And Mr. Turlik, responding to Committee assertions that Garlock settled, rather than tried, risky cases,

[374] Hr'g Tr. 4662:19-25, Aug. 22, 2013 (Glaspy). *See also* Hr'g Tr. 3251:18-20, Aug. 6, 2013 (Magee) ("And there's no question, absolutely no question, that that made these dangerous cases with real risks at trial.") (discussing ACC-770); Hr'g Tr. 3237:3-4, Aug. 6, 2013 (Magee) ("There is certainly risk and expense, and it's prudent to resolve it. I'll agree with that conclusion."); Hr'g Tr. 3240:20-3241:5, Aug. 6, 2013 (Magee) (discussing ACC-767); Hr'g Tr. 3249:21-3250:6, Aug. 6, 2013 (Magee) (discussing ACC-770); Hr'g Tr. 3262:6-13, Aug. 6, 2013 (Magee) (discussing Fowers case); Hr'g Tr. 2376:7-8, Aug. 1, 2013 (Turlik) ("When we settle a case, it's for two reasons. It's to eliminate trial risk and trial costs. So, yes."); Hr'g Tr. 2532:13- 18, Aug. 1, 2013 (Turlik); Mahoney Dep. 27:23-31:6, Feb. 26, 2013; Drake Dep. 58:11-59:11, Nov. 7, 2012; Henzel Dep. 32:15-19, Nov. 14, 2012; O'Reilly Dep. 169:7-19, Feb. 22, 2013; Grant Dep. 216:11-18, Nov. 1, 2011; Hr'g Tr. 88:6-9, Mar. 3, 2011 (Glaspy) (Q. "As a seasoned defense attorney, you recognized, didn't you, that Garlock had good and sufficient reason to settle its cases? A. Yes, the risk of trial.").

said: "No. Absolutely not. Garlock's intent in settling the cases was to save litigation costs." (Tr. 2249:19-20 (Turlik)).

Concerns about trial risk existed in relatively few cases where an "illusion of liability" or "perception of liability" was created by plaintiffs' firms through nondisclosure of evidence. (Tr. 1410:25-1411:2 (Magee) (describing "perception of liability" created by plaintiffs' firms); Tr. 2574:19-2575:9 (Magee) (describing "illusion of liability" crated by non-disclosure)). In those cases, plaintiffs' firms that would "focus on, target Garlock on, threaten to take it to trial to get a verdict to try to drive higher settlements." (Tr. 1410:18-21 (Magee)).

97. Despite the threat of adverse verdicts, Garlock did try mesothelioma cases from time to time. While it won more often than it lost, Garlock also suffered the catastrophic verdicts it feared. The *Treggett* case in California was one such case, where Garlock suffered a verdict in excess of $22 million in 2005, including punitive damages.[375] While Garlock typically appealed these losses, and sometimes settled them for an amount less than the jury verdict, even the appeal bonds required could affect Garlock's overall financial situation negatively, by tying up needed cash.[376]

98. Garlock avoided these risks by entering into group settlement arrangements with individual plaintiff law firms. Group settlements took many forms. Some were formal written arrangements designed to last for several years setting out target average settlement amounts and annual caps on the amounts that would be paid to claimants of a given plaintiff law firm.[377] Others were less formal understandings by which Garlock

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[375] ACC-244.

[376] Hr'g Tr. 3075:2-24, Aug. 5, 2013 (Magee); Hr'g Tr. 3262:14-22, Aug. 6, 2013 (Magee). On occasion, Garlock also settled cases during or after trial but before a verdict was reached. Hr'g Tr. 2304:13-2310:6, Aug. 1, 2013 (Turlik).

[377] *E.g.*, ACC-215; *see also* Ferrell Dep. 69:7-76:3, 76:6-77:15, Jan. 11, 2013.

would negotiate groups of cases on a yearly basis, or as cases were periodically set for trial.[378]

99. When Garlock settled, it was aware that plaintiffs often had exposure to other asbestos-containing products.[379] **It never, however, required representations or other provisions concerning those other exposures, or trust claims that the plaintiffs may make as a result of those exposures, in its settlements.**[380]

RESPONSE: This proposed finding is not consistent with the evidence at trial. First, the finding claims that Garlock was "aware that plaintiffs often had exposure" to other products, but ignores that those plaintiffs, and their attorneys, knew of those exposures but would not acknowledge it. Testimony cited from Mr. Magee, for instance, shows that Garlock expected plaintiffs to be exposed to insulation products, but also expected plaintiffs, consistent with the truth, to acknowledge those exposures. As he explained, "That's the frustration here, Mr. Guy. Yes, it's logical that they should have [exposure] and that they should have acknowledged that exposure in that claim." (Tr. 3133:19-21 (Magee)). Testimony cited by the Committee to support this finding from Mr. Turlik does not address what Garlock knew, but Garlock does not dispute, as the FCR even concedes, the 1995 pipefitter and the 2005 pipefitter has the same exposure to the same products. (Tr. 2252:3-13 (Turlik)). The difference between the 1995 case and the 2005 case was that "[i]n 2005 [Garlock wasn't] hearing about the same exposures in evidence." (Tr. 2252:12-13 (Turlik)).

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[378] ***E.g.*, ACC-658.**

[379] **Hr'g Tr. 2526:20-2528:10, Aug. 1, 2013 (Turlik); Hr'g Tr. 3133:3-9, 3136:3-7, Aug. 5, 2013 (Magee).**

[380] **Hr'g Tr. 2528:5-16, Aug. 1, 2013 (Turlik); Hr'g Tr. 3136:14-25, Aug. 5, 2013 (Magee); 4666:10-14, Aug. 22, 2013 (Glaspy).**

The notion that Garlock would require representations concerning other exposures is completely beside the point. As Mr. Turlik explained, plaintiffs' counsel would not agree to such representations. (Tr. 2528:15-16 (Turlik)). Garlock's only means to uncover the truth were the tools of civil discovery, including obligations of plaintiffs and their lawyers to investigate the basis for their claims and to provide complete and truthful responses in discovery. The evidence at trial showed that plaintiffs and their counsel, in high-dollar cases, did not discharge those duties, to Garlock's detriment.

Getting this exposure evidence from the plaintiff was at the heart of Garlock's defense at trial. For Garlock to be successful, it needed to show which products caused a plaintiff's disease. (Tr. 2563:24-2564:5, 2564:15-18 (Magee) ("[P]eople involved in litigation knew that's what the litigation was about. The litigation was about exposures. It was about -- it was about relative exposures."); Tr. 2239:13-19 (Turlik) (explaining importance of evidence of exposure to other products to jury decision); Tr. 4530:5-7 (Glaspy) (same)). When plaintiffs failed to acknowledge evidence, Garlock's trial risk and costs increased, which in turn drove settlements higher. (Tr. 2573:20-2574:6 (Magee) (explaining impact on absence of evidence from plaintiff)).

100. Until the late 2000s, Garlock settled cases against the backdrop of its available insurance resources. Beginning in the 1980s, Garlock had negotiated a series of "coverage in place" agreements with its insurers so that by the late 1990s, Garlock was receiving periodic payments of funds from insurers to deal with asbestos litigation.[381] Some insurers retained the right to audit settlements. Garlock has passed all such audits that have been completed.[382] Garlock's overall strategy for managing asbestos liability focused

[381] Grant Dep. 208:18-209:20, Nov. 1, 2011; *see also* Hr'g Tr. 3207:12-3203:22, Aug. 6, 2013 (Magee).

[382] Barry Dep. 137:2-139:3, 139:17-141:19, Nov. 6, 2012.

on arranging settlements so that the timing of insurance receipts matched settlement payments as closely as possible, thereby reducing the effect of the settlements on net income and shareholders' equity.[383]

101. By the mid 2000s, however, Garlock recognized that insurance receipts would soon be fully committed and asbestos settlements would begin to have a more visible impact on the company's financials.[384] One result is that, Garlock began to cite Garlock's tightening financial situation in negotiations with plaintiffs' firms for lower settlements.[385]

102. Throughout its decades in the tort system, Garlock had sophisticated in-house personnel dedicated to managing Garlock's asbestos litigation and a nationwide roster of outside defense counsel.[386]

E. Garlock's Prepetition Estimates of Liability

103. Prior to filing their bankruptcy petition, Garlock and its corporate parents regularly estimated their present and future asbestos liabilities using an estimation method based on Garlock's own resolution history and epidemiologically-derived forecasts of future claims. The first estimate described in testimony is one prepared for Garlock's parent company, Coltec Industries, in connection with a tax issue in the mid-1990s.[387]

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[383] Magee Dep. 36:19-25, 42:19-49:21, Jan. 23, 2013; Hr'g Tr. 3366:21-3367:4, Aug. 6, 2013 (Magee).

[384] Magee Dep. 131:7-132:9, Jan. 23, 2013; Hr'g Tr. 3368:2-12, Aug. 6, 2013 (Magee).

[385] Hr'g Tr. 3878:10-19, Aug. 8, 2013 (Peterson); Hr'g Tr. 4640:11-4641:1, Aug. 22, 2013 (Glaspy).

[386] ACC-7; ACC-9; ACC-10.

[387] *See, e.g.*, ACC-171.

104. Garlock's ultimate parent, EnPro Industries, Inc., used a similar estimation method for its periodic internal management estimates of Garlock's asbestos related liability until 2010.[388]

105. Dr. Charles Bates, Garlock's estimation expert here, also prepared estimates of Garlock's present and future asbestos liabilities for EnPro's quarterly and annual financial reports from 2005 until Garlock went bankrupt in 2010 using a variant of the same method.[389]

RESPONSE: In each instance of quarterly or annual reporting, Garlock, EnPro, or its expert was estimating *expenditures*, and not forecasting allowed claims. (*See, e.g.*, Tr. 3043-3056 (Magee) (explaining the aim of financial reporting)). Expenditures are not equivalent to legal liability. (*See, e.g.*, Tr. 3044:13-17 (Magee) (noting that Price Waterhouse Coopers explained this distinction)).

F. Expert Estimates of Aggregate Liability for Mesothelioma Claims

i. Dr. Mark A. Peterson

106. To estimate Garlock's aggregate liability for present and future mesothelioma claims, Dr. Peterson makes use of Garlock's history of resolving asbestos claims as recorded in Garlock's own historical claims database. Pending and future claims are estimated separately, although the steps are similar.

107. To estimate pending claims, Dr. Peterson first determines the number of pending mesothelioma claims in the Garrison Database.[390] He then reviews Garlock's

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[388] *E.g.*, ACC-621 (EnPro Indus., Inc., 2008 10-K) at 88.

[389] Hr'g Tr. 2877:19-2879:11, Aug. 5, 2013 (Bates).

[390] Hr'g Tr. 3882:22-3883:7, Aug. 8, 2013 (Peterson).

settlement history during a period, called a "calibration period," to determine the percentage of claims that are likely to be paid by Garlock rather than dismissed, and to determine the average settlement value for those claims that are paid. Pending claims are then valued by multiplying the paid claims by the average settlement value.

108. Estimation of Garlock's liability for future asbestos claims proceeds along similar lines. Two extra steps are required, however. First, Dr. Peterson needs to predict how many mesothelioma claims Garlock will face in future years. Dr. Peterson does this by using a well-known forecast by Dr. William J. Nicholson and others at Mt. Sinai Hospital of the number of people who will die from mesothelioma in the United States through 2030.[391] Courts have embraced the Nicholson Study as "remarkably accurate over time."[392] Dr. Peterson extends that projection to cover additional years through 2049.

RESPONSE: The Nicholson forecast is not a forecast of "the number of people who will die from mesothelioma in the United States through 2030," and is falsified by empirical data, as Dr. Rabinovitz and Dr. Bates have opined and as explained in the response to Proposed Finding #23.

109. To estimate what fraction of the persons stricken with mesothelioma in the future will bring a claim against Garlock, Dr. Peterson divides the number of mesothelioma claims Garlock received during the calibration period by the incidence of mesothelioma during that period.[393] This fraction is called the "propensity to sue."

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[391] W.J. Nicholson et al., *Occupational Exposure to Asbestos: Population at Risk and Projected Mortality – 1980-2030*, 3-3 Am. J. Indus. Med. 259, 259-311 (1982).

[392] *In re Armstrong World Indus., Inc.*, 348 B.R. 111, 126-27 (D. Del. 2006).

[393] Hr'g Tr. 3891:6-18, Aug. 8, 2013 (Peterson).

110. The number of mesothelioma claims Garlock will face in each future year is then estimated by multiplying Nicholson's projected number of mesothelioma deaths in that future year by the propensity to sue.[394]

111. These projected future claims against Garlock are then valued using the same formula that is used for pending claims. Average settlement values are, in future years, adjusted for inflation. The result is a series of estimates of the nominal amount Garlock would pay in each future year through 2049.

112. The final step is to reduce these future payments to a present value.[395] This is done using discount rates supplied by a financial expert.

113. Dr. Peterson applied the method described above and arrived at a preferred forecast of Garlock's present and future asbestos liability of $1.265 billion.[396]

114. Dr. Peterson chose as his calibration period the interval 2006-May 2010.[397] Because this period is the most recent period of settlement history prior to bankruptcy, Dr. Peterson believed it is the period most likely to resemble what Garlock would have experienced since June 2010 and in the future had it not filed for bankruptcy.[398] Furthermore, an analysis of mesothelioma settlement values and payment rates showed that prior to that interval, payment rates had been trending down and settlement values

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[394] *Id.* at 3893:3-23.

[395] *Id.* at 3890:1-13.

[396] *Id.* at 3903:13-17.

[397] *Id.* at 3884:7-16.

[398] *Id.* at 3884:7-16.

had been trending up. Dr. Peterson testified that the 2006-2010 interval was the most stable in this respect.[399]

115. Dr. Peterson uses average settlement amounts and payment rates from this 2006 to May 2010 period.[400] For propensity to sue, the primary estimate begins with the average from the calibration period and then continues an upward trend in the propensity to sue that existed in the 2006-2010 period. It assumes that the increasing propensity to sue will stabilize and level off after 2014.[401]

116. Dr. Peterson increases future settlement payments by a 2.5 percent inflation rate and then reduces those future payments to present value using a discount rate provided by the Committee's financial expert, Kenneth W. McGraw.

117. Mr. McGraw used U.S. Treasury securities to determine the risk-free rate because Treasury securities are accepted by financial markets as "risk free."[402] He calculated the discount rate separately for each year of future payments forecasted by Dr. Peterson. The appropriate risk-free discount rates to apply to the future indemnity payments for each year are the yields reflected in the marketplace, as of June 4, 2010, on U.S. Treasury securities with maturities corresponding to these payments. Taking account of the timing and relative weighting of the annual payments constituting the stream, the year-by-year discount rates applicable are the mathematical equivalent of an overall discount rate of 3.251 percent.[403]

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[399] ***Id.*** **at 3885:20-3887:20.**

[400] ***Id.*** **at 3902:3-5.**

[401] ***Id.*** **at 3898:5-3899:23.**

[402] **McGraw Report at 4-6.**

[403] ***Id.*** **at Exh. 9.**

RESPONSE: See the response to Finding #16 above for an explanation why Dr. Peterson used a mismatched and inappropriate discount rate, and further that this mistake inflates his projection by 18%. (Snow Amended Rebuttal Report at 23, 42 (GST-7239)).

118. Dr. Peterson's estimation method has been widely used in legal proceedings and in the financial and corporate communities. The method has been frequently used for planning and financial reporting by companies that face asbestos liabilities.[404] Garlock and its corporate parents have used essentially this same method for almost 20 years, beginning with Coltec in connection with a tax issue in the mid-1990s.[405] Garlock's ultimate parent, EnPro, used a variant for its periodic internal management estimate of Garlock's asbestos-related liability until 2010.[406] So, too, did Dr. Charles Bates, Garlock's estimation expert here, when he prepared estimates of Garlock's asbestos liabilities for EnPro's quarterly and annual financial reports from 2005 until Garlock went bankrupt in 2010.[407]

RESPONSE: Dr. Peterson's method has never been used in a case where the debtor disputes its liability and objects to using settlements to estimate its liability, as the Court has previously recognized. Estimation Order ¶¶ 6, 15. Rather, the method has only been used when

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[404] *E.g.*, Crown Holdings, Inc., Annual Report (Form 10-K) at 38 (Mar. 1, 2013) ("Projected future claims are calculated based on actual data for the most recent five years. Outstanding and projected claims are multiplied by the average settlement cost of those claims for the most recent five years."); Ingersoll-Rand PLC, Annual Report (Form 10-K) at F-44 (Feb. 14, 2013) (describing "methodology used to project the Company's total liability for pending and unasserted potential future asbestos-related claims" based on epidemiological studies estimating the number of people likely to develop diseases such as mesothelioma, propensity to sue based on most recent three-year claims history, and the average settlement and resolution value of claims for the most recent three years).

[405] *See, e.g.*, ACC-171.

[406] *E.g.*, ACC-621 (EnPro Indus., Inc. 2008 10-K) at 88.

[407] Hr'g Tr. 2877:19-2879:11, Aug. 5, 2013 (Bates).

the debtor and asbestos claimants have already agreed to a settlement, which has not happened here.

It is not appropriate for estimation under section 502(c) in a case where the debtor disputes liability. Claims can be allowed only to the extent they are enforceable under state law, and estimation must therefore focus on claimants' potential damages, the debtor's potential share of those damages, and the claimant's likelihood of success. 11 U.S.C. § 502(b)(1); *In re Ralph Lauren Womenswear*, 197 B.R. 771, 775 (Bankr. S.D.N.Y. 1996).

Dr. Peterson failed to estimate any of the parameters relevant to the merits of claims. (Tr. 3973:5-3977:18, 4063:2-4063:10 (Peterson)). Nor did he attempt to show that the settlements he used are a proxy for the merits of claims. To the contrary, he admitted that settlements are *not* such a proxy, when he testified that costs are "why 99.9 percent of the cases settle, rather than going to trial, because both sides know that these are expensive propositions" (Tr. 3981:18-3983:23 (Peterson)) and when he testified that in the group settlements that made up the bulk of Garlock's settlements trial risk was not a factor because the cases "haven't gotten that far yet, they can't assess the risk" (Tr. 3983:24-3984:24 (Peterson)). Nor did Dr. Peterson analyze the role that non-disclosure of material exposure evidence played in inflating Garlock's settlements in ways unrelated to the merits of claims. (Tr. 4119:8-4120:6 (Peterson)).

The use of a settlements-based method in financial reporting and for other corporate purposes is irrelevant here because in those contexts, the purpose of the forecast is to predict expenditures, not allowed claims. (Tr. 3044:9-17, 3054:16-3055:15 (Magee); Tr. 2776:3-2778:7, 2831:8-2832:13, 4755:20-4756:18 (Bates)). It is appropriate to use and predict settlements in that context, because companies are attempting to predict how much they will spend in the future. This Court's task is different, as the Court's Estimation Order recognizes. Dr. Peterson never

explained why the Court should care about a projection of what Garlock would have spent if it had remained in the tort system, contrary to fact.

Furthermore, Dr. Peterson's method is not the one used by Debtors or Dr. Bates pre-petition to predict future settlements. Dr. Peterson simply extrapolated Garlock's most recent history (along with an arbitrary bump-up due to his increased propensity to sue) without making any showing that the recent history is representative of the future. Dr. Peterson had no ability to quantify why Garlock's settlements have varied in the past, and therefore no ability to predict reliably how they might differ in the future. (Tr. 4046:8-15, 4081:2-15 (Peterson)). Nor did he quantify uncertainty in his prediction. (Tr. 4249:2-4249:10 (Heckman)). Thus, as Dr. Heckman testified, Dr. Peterson's forecast was completely unscientific. (Tr. 4259:24-4260:13 (Heckman)). Dr. Bates, to the contrary, when he analyzed Garlock's settlements before and during this case, both rigorously studied the determinants of settlements and quantified the uncertainty in his prediction. (Tr. 4757:11-4758:5, 4795:11-4796:22, 4799:13-4801:6 (Bates)).

Finally, as discussed immediately below, even taking Dr. Peterson's method on its own terms, he committed data and other errors that mean his forecast is nearly one billion dollars too high.

119. The criticisms of Dr. Peterson offered by Drs. Bates and Gallardo-García are without merit. The increasing trend Dr. Peterson incorporated into his propensity to sue is appropriate given Garlock's litigation history and the associated data.[408] Dr. Peterson's use of an inflation rate of 2.5 percent to increase average settlement rates in the future and an overall discount rate of 3.251 (weighted to account for the timing of payments in his forecast) are correct. And Dr. Bates was mistaken to suggest that Dr. Peterson's estimate is

[408] Hr'g Tr. 3962:18-24, Aug. 8, 2013 (Peterson).

inflated by a failure to take into account the geographic distribution of pending claims as compared to claims settled during the calibration period of 2006 to 2010 – indeed, when this is done not just for two states, as Dr. Bates did, but nationwide, the overall settlement average increases.[409]

RESPONSE: Dr. Bates's criticism of Dr. Peterson's propensity to sue trend is valid, as explained in Debtors' response to Proposed Finding #23. Debtors' response to Proposed Finding #16 explains why Dr. Peterson used a mismatched and inappropriate discount rate, and further that this mistake inflates his projection by 18%. (Snow Amended Rebuttal Report at 23, 42 (GST-7239)). In addition, Dr. Peterson has traditionally used inflation and risk free rates that are not mismatched, resulting in real risk free rates of approximately 3%—even after the financial crisis that led to a lower nominal interest rate environment. (*See* Mark. A. Peterson, Armstrong World Industries, Inc. Projected Liabilities for Asbestos Personal Injury Claims (Nov. 6, 2003) at 23 (GST-6581); Mark A. Peterson, Turner and Newall Inc. Projected Liabilities for Asbestos Personal Injury Claims (Nov. 29, 2004) at 39 (GST-6580); Mark A. Peterson, Owens Corning and Fibreboard Projected Liabilities for Asbestos Personal Injury Claims (Oct. 15, 2004) at 28, 45 (GST-6579); Mark A. Peterson, GAF Projected Liabilities for Asbestos Personal Injury Claims (March 10, 2005) at 44 (GST-6577); Mark A. Peterson, USG Corporation Projected Liabilities for Asbestos Personal Injury Claims (May 2006) at 43-44 (GST-6575); Mark A. Peterson, ASARCO Projected Liabilities for Asbestos Personal Injury Claims (May 2007) at 46-47 (GST-6571); W.R. Grace Projected Liabilities for Asbestos Personal Injury Claims (January 2009) at 87-88 (GST-6574)).

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[409] ***Id.* at 3963:7-3964:12.**

Dr. Bates's criticism of Dr. Peterson's failure to take into account the jurisdictional mix of pending claims is also valid. Dr. Bates explained that Dr. Peterson's "nationwide" analysis of average settlements is misleading because it does not take into account settlement rate. Though the settlement average increases when all states are considered, the settlement rate decreases by more, such that the product of the two does decrease when all states are considered. (Tr. 4781:7-4782:8 (Bates)).

120. The suggestion by Drs. Bates and Gallardo-García that Dr. Peterson made data processing errors that affected his estimate is wrong. If Dr. Peterson had removed cases from the database based on information generated in the Mesothelioma Claims Questionnaire ("MCQ") as they suggest, it would have improperly skewed the count of mesothelioma cases lower, because the MCQ provides no basis for a correlative adjustment for mesothelioma claims misrecorded in the database as involving other asbestos diseases.[410] Dr. Peterson's assumption that pending claims would be paid over the 2010-2012 period is equivalent under his method to their being paid in 2011, but this has a negligible effect on his estimate.[411] Dr. Gallardo-García's complaint that Dr. Peterson counted three verdicts in the wrong year by using the date of the last related entry in the database, rather than the year of the verdict, is off base. Using the last-related date in the database was a sensible way to assign a date to an event with multiple payment dates, particularly since Garlock often tied up verdicts on appeal for years. Furthermore, whether recognized in the year of first payment or that of last offset, these verdicts would fall within the calibration period used by Dr. Peterson, so the differences would not affect his estimate.

[410] ***Id.*** **at 3959:3-3960:21.**

[411] ***Id.*** **at 3953:4-10.**

RESPONSE: The attempt to minimize Dr. Peterson's data errors is both incomplete and erroneous. First, the proposed finding does not address the major source of errors, which is Dr. Peterson's failure to take account of dismissals evidenced by the PIQs, which affects both the pending claim estimate and his settlement/dismissal rate. (Tr. 4685:20-4686:16 (Gallardo-Garcia)). As Dr. Gallardo-Garcia testified, there is no possible risk of bias from taking into account these historical dismissals. (Tr. 4686:17-24 (Gallardo-Garcia)).

Dr. Bates explained why Dr. Peterson's argument about PIQ responses stating that claimants did not have mesothelioma was incorrect. There are only 1,334 unknown disease claims in the Garrison database that were filed after 2005, and Dr. Peterson's own "transition matrix" figures show that only 85 of those would be expected to become mesothelioma claims, 58 of which emerged in the PIQ process already. (Tr. 4778:9-4779:3 (Bates)). This testimony was unrebutted. Thus, Dr. Peterson erred by not considering the much larger number of claims revealed not to be mesothelioma claims through the PIQ process.

Dr. Peterson's assumption that all claims would be paid in 2011 was not trivial, but contributed to errors that totaled $120 million. (Bates Rebuttal Demonstrative Slides at 5 (GST-8026)). Further, the Committee's proposed finding does not even respond to Dr. Bates's criticism that Dr. Peterson failed to consider that pending claims had been pending for longer than average and were therefore less valuable, as Dr. Peterson admitted that error. (Tr. 3954:11-16 (Peterson)).

The proposed finding fails to note that Dr. Gallardo-Garcia's criticism of Dr. Peterson's placement of verdict payments resulted from Dr. Peterson's erroneous placement of those verdicts in 2010, the year contribution was made, not the year the verdict was paid or rendered. (Tr. 4691:23-4693:11 (Gallardo-Garcia)). The post hoc attempt to rationalize this by saying that the date of first payment would still place the verdicts within Dr. Peterson's calibration period is

erroneous. As Dr. Bates explained, verdicts influence the average settlement going forward, such that putting verdicts into later years (if paid in a later year) double counts the effect of the verdict and overstates the average settlement amount going forward. (Tr. 4771:15-4775:20 (Bates)).

Finally, the proposed finding does not even address Dr. Bates's criticism of Dr. Peterson for failing to take into account changes in the timing of Trust claims that would have affected Garlock's settlements in the future. Dr. Bates, using the DCPF data ordered by the Court during discovery in this case, showed that more claimants are filing Trust claims before resolving their claims with Garlock, and that such claimants settle for less. (Tr. 4795:11-4796:22, 4799:13-4800:3 (Bates)). Dr. Bates opined, in testimony that was not successfully rebutted, that failing to take this into account had a $300 million impact on Dr. Peterson's forecast. (Tr. 4801:7-4802:9 (Bates)).

ii. Dr. Francine Rabinovitz

121. Dr. Rabinovitz relied on Garlock's historical claims database, which contains information concerning thousands of mesothelioma claims against Garlock and the amounts Garlock paid to resolve those claims, to prepare her estimate of Garlock's liability for pending and future mesothelioma claims.[412]

122. Dr. Rabinovitz forecasted that approximately 26,000 pending and future mesothelioma claims will be brought against Garlock.[413] She estimated that the amount of money that Garlock will need to resolve those claims is approximately $1.217 billion net present value in her adjusted indemnity case to $1.292 billion net present value in her

[412] Hr'g Tr. 4169:10-11, 4202:17-19, 4203:15-21, 4216:7-10, 4216:21-4217:11, 4223:22-24, Aug. 9, 2013 (Rabinovitz).

[413] *Id.* at 4169:23-4170:2.

preferred base case, including defense costs.[414] Exclusive of defense costs, Dr. Rabinovitz's estimate is between $913.4 million and $969.5 million.[415]

RESPONSE: This proposed finding is erroneous. Dr. Rabinovitz actually testified that, exclusive of defense costs, her estimate was between $893 million and $949 million. (Tr. 4293:7-4293:19 (Rabinovitz)).

123. Dr. Rabinovitz's estimation methodology consisted of six steps. First, Dr. Rabinovitz estimated the size of the population exposed to asbestos.[416] This projection was based on the Nicholson-KPMG model, which has been accepted by courts and is an adjustment to the original Nicholson model.[417]

124. Dr. Rabinovitz then estimated the proportion of persons exposed to asbestos who will develop mesothelioma.[418] Dr. Rabinovitz used the Nicholson-KPMG model's projections of mesothelioma mortality for her estimate.[419] She estimated that in excess of 27,000 individuals will contract mesothelioma in the future but testified that the actual number may be higher given that people are living much longer than in the past, when the Nicholson-KPMG model was created.[420]

RESPONSE: As set forth above in the response to Proposed Finding #18, Dr. Rabinovitz did not estimate the "size of the population exposed to asbestos" in the United States, or general

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[414] *Id.* at 4222:21-23.

[415] *Id.* at 4293:10-19.

[416] *Id.* at 4173:25-4174:5.

[417] *Id.* at 4174:13-14, 4174:25-4176:1.

[418] *Id.* at 4178:14-21.

[419] *Id.* at 4178:25-4179:6.

[420] *Id.* at 4176:24-4177:6, 4187:3-13; FCR-42, at 22 (Rabinovitz Demonstrative PowerPoint).

"mesothelioma mortality," because the Nicholson-KPMG model only measures occupational incidence. Dr. Rabinovitz herself has admitted this fact in previous work, and explained how misleading it is to compare an occupational incidence model (such as Nicholson-KPMG) to nationwide SEER data. (Expert Rebuttal Report of Dr. Francine F. Rabinovitz, *In re ASARCO LLC* (June 27, 2007) (GST-6587) at 10).

The proposed finding's misstatement thus conceals the fact that Dr. Rabinovitz's criticism of Dr. Bates's incidence model applies with even more force to her own, less comprehensive model. In addition, Dr. Rabinovitz did nothing to measure the alleged error in the Nicholson-KPMG model due to the aging of the population. Dr. Bates's updated incidence model, by contrast, takes that data into account as well as all other recent data that Nicholson and Nicholson-KPMG could not have considered, such as SEER data. (Tr. 2725:18-2727:1 (Bates)).

125. Dr. Rabinovitz next forecasted the percentage of the population that is likely to file mesothelioma claims against Garlock in the future, known as the propensity to sue.[421] She did so by dividing the number of mesothelioma claims filed against Garlock during the calibration period by the number of mesothelioma deaths predicted by the Nicholson-KPMG model for those same years, resulting in a 79.1 percent claiming rate / propensity to sue.[422] Dr. Rabinovitz testified that in recent years, the propensity to sue Garlock was even higher, which is a trend that may occur in the future given that Garlock manufactured and sold asbestos-containing products through 2001.[423] To establish an estimate of the number of future mesothelioma claims that will be filed against Garlock,

[421] Hr'g Tr. 4180:11-16, Aug. 9, 2013 (Rabinovitz).

[422] *Id.* at 4180:14-4181:14.

[423] *Id.* at 4215:4-9; FCR-42, at 24 (Rabinovitz Demonstrative PowerPoint).

Dr. Rabinovitz then multiplied the propensity to sue by the number of mesothelioma deaths projected by the Nicholson-KPMG model in each future year.[424]

126. Dr. Rabinovitz valued Garlock's pending and future mesothelioma claims by calculating the average indemnity value during a five-year calibration period from 2005 to 2010.[425] Dr. Rabinovitz testified that this five-year calibration period was appropriate because (a) Garlock's payment rates changed in 2005, evidencing that Garlock went into a different mode of handing cases;[426] (b) the five-year period before Garlock's bankruptcy reflects the future in that Garlock's insulator co-defendants were no longer paying claims in the tort system and bankruptcy trusts were paying claimants on a regular basis, both of which trends are here to stay;[427] (c) the guidelines set forth in *In re Eagle-Picher Industries, Inc.*, 189 B.R. 681, 691 (Bankr. S.D. Ohio 1995), provide that estimators should use a debtor's most recent history, adjusted for any major changes that occurred in that period;[428] (d) Garlock's recent claims history takes into account all of the events that have occurred up to that point, including potential defenses, and places a value on them;[429] (e) beginning in 2006, the amount of money paid by bankruptcy trusts increased greatly;[430] and (f) the majority of the future claims against Garlock fall between 2010 and 2020, supporting the use of a recent calibration period.[431]

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[424] FCR-42, at 22, 24, 28 (Rabinovitz Demonstrative PowerPoint).

[425] Hr'g Tr. 4186:1-5, Aug. 9, 2013 (Rabinovitz).

[426] *Id.* at 4182:10-4183:7.

[427] *Id.* at 4185:5-15, 4210:4-8.

[428] *Id.* at 4184:7-23; Hr'g Tr. 4300:20-4301:14, Aug. 12, 2013 (Rabinovitz).

[429] Hr'g Tr. 4185:2-15, Aug. 9, 2013 (Rabinovitz).

[430] Hr'g Tr. 4317:2-9, Aug. 12, 2013 (Rabinovitz).

[431] Hr'g Tr. 4187:24-4188:3, Aug. 9, 2013 (Rabinovitz).

RESPONSE: Dr. Rabinovitz appealed to the "recency principle" to support her choice of calibration period, the only expert judgment she made in this case. As a general matter, Prof. Heckman established that this "recency principle" is not a scientific principle at all. He testified, "I heard to my surprise that there's somehow a principal [sic] established that you use the most recent period to establish what should be happening in the rest of the next ten, 20, 30 years. That simply isn't true. We've seen the failure of that in evaluating stock prices. . . . We know that's a strategy that's actually failed miserably." (Tr. 4237:12-19 (Heckman)).

Dr. Rabinovitz's espousal of this principle was especially remarkable because of admissions she made in prior cases that (a) defendants' indemnity payments increased because of the Bankruptcy Wave (Tr. 4305:8-4307:2 (Rabinovitz)), but that (b) once Trusts were established with tens of billions of dollars for mesothelioma claimants, there should be "considerable downward pressure" on tort system indemnity values because state law in joint and several jurisdictions provides that defendants get setoff for such payments (Tr. 4312:17-4314:10 (Rabinovitz)). That Garlock's settlements did not immediately decrease provides strong evidence that either settlements are not a proxy for the merits of claims at all (as Debtors contend), or that the expected effect of the Trusts has been delayed.

Instead, Dr. Rabinovitz hypothesized that the effect of Trusts has already been "priced into" Garlock's settlements. But she had no basis for this opinion. Contrary to the proposed finding, Trusts did not even begin paying significant amounts of money until late in 2007. (Tr. 2801:4-12 (Bates)). They began by paying a backlog of hundreds of thousands of claims that had accumulated during the bankruptcy cases. (Tr. 2801:13-18 (Bates)). Only in the late 2000s were Trusts even paying the same claims that Garlock was settling. (Tr. 2801:19-22 (Bates)). Even

then, as Debtors showed at trial, plaintiff firms attempted to postpone the effect of the Trusts by delaying Trust claims and concealing exposure evidence. (Tr. 3245:9-12 (Magee)).

Dr. Rabinovitz neither disputed nor analyzed any of these facts, relying solely on her bare opinion that "[p]resumably, plaintiffs and defendants are taking [Trust claims] into account" when settling mesothelioma claims. (Tr. 4210:5-6 (Rabinovitz)). She did not analyze whether Trusts were paying a backlog instead of the claims Garlock was settling. (Tr. 4317:10-4318:21 (Rabinovitz)). And she did not investigate the possibility that Garlock was affected by strategies to conceal or delay Trust claims, even though a report she relied on stated that was indeed the case. (Tr. 4328:3-10, 4329:3-7 (Rabinovitz)). Thus, she had no reason to rule out or deny the possibility that relief from Trusts had been delayed, not denied, and that it would never happen in the future.

As a general matter, Dr. Rabinovitz testified to no statistical or other testing she had done to determine that the recent past is representative of the future. To the contrary, she testified that she did not study and did not know why Garlock's settlements varied over time: "we simply looked at them [the settlements] and said, this is what it looks like, let's go forward." (Tr. 4301:15-4304:1 (Rabinovitz)). Thus, she had no conceivable basis to predict future settlements on the basis of recent history or any other history.

The more general flaws in Dr. Rabinovitz's method are addressed below, but for all these reasons, even if it were appropriate to predict tort system settlements in this estimation proceeding, Dr. Rabinovitz's method for doing so was not reliable or scientific.

127. For her preferred base case estimate, Dr. Rabinovitz calculated Garlock's average settlement payment during the five-year period and then factored in the pay rate to account for the unpaid claims, resulting in an average indemnity value of approximately

$39,700.[432] For her adjusted indemnity estimate, Dr. Rabinovitz calculated a weighted average indemnity value of approximately $38,500, which recognizes that (a) claims pending for six or more years may be resolved without payment, and (b) increases in claimant age and the year of first exposure to asbestos will reduce future growth in average indemnity payments.[433]

128. Dr. Rabinovitz also estimated the values of 246 settled-but-not-paid claims and 181 disputed settlement claims as placeholders to ensure that this class of claims was not overlooked or undervalued during the bankruptcy proceedings.[434] Dr. Rabinovitz estimated these claims at approximately $20.3 million net present value and emphasized that precise amounts for these claims must be determined before the formation of a § 524(g) trust.[435]

RESPONSE: The FCR has now acknowledged that this figure should not be included in Dr. Rabinovitz's estimate. (FCR Br. at 12-13). In any event, Dr. Rabinovitz calculated this figure erroneously, for reasons explained by Drs. Gallardo-Garcia and Bates. (Tr. 4761:13-4763:2 (Bates); Tr. 4688:1-4690:8 (Gallardo-Garcia)).

129. Dr. Rabinovitz estimated the cost of defending asbestos claims. Defense costs were estimated by calculating the defense cost share percentage of mesothelioma and lung cancer indemnities (34 percent), and then applying that percentage to pending and future liability estimates.[436] Dr. Rabinovitz testified that she included defense costs in her

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[432] *Id.* at 4186:7-15; FCR-42, at 25 (Rabinovitz Demonstrative PowerPoint).

[433] Hr'g Tr. 4170:17-4172:7, Aug. 9, 2013 (Rabinovitz).

[434] Hr'g Tr. 4189:5-4190:22, 4200:19-25, Aug. 9, 2013 (Rabinovitz).

[435] *Id.* at 4189:24-4190:14; FCR-42, at 18 (Rabinovitz Demonstrative PowerPoint).

[436] Hr'g Tr. 4191:13-4192:13, Aug. 9, 2013 (Rabinovitz).

estimate because (a) defense costs were an integral part of Garlock's prepetition decision making;[437] (b) defense costs must be considered when determining Garlock's solvency;[438] (c) estimates of defense costs are always included in SEC filings;[439] and (d) defense costs act as a proxy for trust administration expenses, ensuring that trust administration costs will not come from the trust corpus.[440]

RESPONSE: The FCR has now acknowledged that defense costs should not be included in Dr. Rabinovitz's estimate. (FCR Br. at 12). As Debtors established at trial, claimants are not entitled to collect defense costs that would have been paid but for the bankruptcy (Tr. 4293:20-4294:6 (Rabinovitz)), and tort system defense costs are not a proxy for Trust administrative costs, which are much lower. (Tr. 4759:18-4761:4 (Bates)).

130. Finally, using information from the Congressional Budget Office provided by the FCR's financial advisor, Mr. Joseph Radecki, Dr. Rabinovitz adjusted the future mesothelioma claims for inflation, applying a rate of between 1.0 percent and 2.3 percent (depending on the year) for her base case and between .50 percent and 1.8 percent (depending on the year) for her adjusted indemnity case.[441] Dr. Rabinovitz then applied a risk-free discount rate of 2.81 percent, which was also provided by Mr. Radecki and was

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[437] *Id*. at 4194:18-22; Hr'g Tr. 4292:11-14, 4297:7-13, Aug. 12, 2013 (Rabinovitz).

[438] Hr'g Tr. 4194:22-4195:1, Aug. 9, 2013 (Rabinovitz); Hr'g Tr. 4292:15-16, Aug. 12, 2013 (Rabinovitz).

[439] Hr'g Tr. 4195:1-3, Aug. 9, 2013 (Rabinovitz); Hr'g Tr. 4292:15-16, Aug. 12, 2013 (Rabinovitz).

[440] Hr'g Tr. 4195:12-24, Aug. 9, 2013 (Rabinovitz); Hr'g Tr. 4294:18-25, Aug. 12, 2013 (Rabinovitz).

[441] Hr'g Tr. 4195:25-4196:9, Aug. 9, 2013 (Rabinovitz); FCR-42, at 34 (Rabinovitz Demonstrative PowerPoint).

based on yields in the market for U.S. Treasuries, to determine the net present value of the claims as of the petition date.[442]

RESPONSE: See Garlock's response to Finding #16 above for an explanation why Dr. Rabinovitz used a mismatched and inappropriate discount rate, and further that this mistake inflates her projection by 17%. (Snow Amended Rebuttal Report at 23, 42 (GST-7239)). In addition, this is the first time that Dr. Rabinovitz has calculated her discount rate in this way. In prior cases, she used CBO rates for both inflation and her risk-free rate, as Dr. Bates did in this case, which results in a far more reasonable real risk free rate of approximately three percent. (Rabinovitz Report, *Owens Corning* (Oct. 15, 2004) at 15 n.16 (GST-6591)).

131. Dr. Rabinovitz's methodology, like Dr. Peterson's very similar approach, has been widely used in both legal and financial contexts. It is also tested, both in Dr. Rabinovitz's SEC reporting work and in bankruptcy cases.[443]

RESPONSE: As set out in Debtors' response to Proposed Finding of Fact #118, a settlement-based method has never been used in a case where the debtor disputes its liability and objects to using settlements to estimate its liability. Estimation Order ¶¶ 6, 15. Moreover, like Dr. Peterson, Dr. Rabinovitz did not draw any link between settlements and the merits of claims, except to testify (erroneously) that Garlock stipulated to liability when it settled (Tr. 4359:4-6 (Rabinovitz)). To the contrary, Dr. Rabinovitz characterized asbestos litigation as an "industry" where cases are not negotiated individually on the basis of their merits. (Tr. 4367:11-4369:8 (Rabinovitz)).

Like Dr. Peterson, Dr. Rabinovitz never drew a link between Garlock's settlements and the allowed amount of claims, the issue in this proceeding—much less rebut Debtors' showing

[442] Hr' g Tr. 4195:25-4196:9, 4197:7-24, Aug. 9, 2013 (Rabinovitz).

[443] *Id.* at 4223:8-11.

that Garlock's settlements were driven by both defense costs and (in certain large settlements) non-disclosure of material exposure evidence. Nor did Dr. Rabinovitz estimate any of the parameters relevant to the merits of claims, such as the number of claimants alleging exposure, their potential damages, Garlock's share of such damages, or their likelihood of success. (Tr. 4364:23-4367:10 (Rabinovitz)).

Also as explained in Debtors' response to Proposed Finding #118, the use of a settlements-based method in financial reporting and for other corporate purposes is not relevant to estimation because, in those contexts, the goal is to predict settlements, not allowed claims. (Tr. 3044:9-17, 3054:16-3055:15 (Magee); Tr. 2776:6-2778:10, 2831:8-2832:13, 4755:20-4756:18 (Bates)).

Finally, the proposed finding states that Dr. Rabinovitz's method has been "tested," but the FCR presented no evidence at all demonstrating the results of such tests. To the contrary, Dr. Rabinovitz presented no test of the statistical variability of her forecasts or confidence intervals for the parameters she estimated. (Tr. 4245:23-4249:1 (Heckman)).

132. Dr. Bates raised a number of criticisms of Dr. Rabinovitz's opinion, which Dr. Rabinovitz addressed at the Hearing:

- **Dr. Bates criticized Dr. Rabinovitz for not relying on Garlock's personal injury questionnaires. Dr. Rabinovitz, however, testified that she reviewed a sample of questionnaires, which contained inconsistent information, and chose to rely on the Garrison Database, which she considers the "gold standard" for claims information.[444] In addition, in assuming that 46 percent of all present and future claims will receive zero payment in her base case (and 60 percent in her**

[444] *Id.* at 4168:23-4169:11; *accord id.* at 4202:24-4203:14, 4204:8-4204:13; Hr'g Tr. 4351:9-18, Aug. 12, 2013 (Rabinovitz).

adjusted indemnity case), Dr. Rabinovitz stated that she already factored in the dismissals and other issues that Garlock alleges it identified in the personal injury questionnaires.[445]

RESPONSE: Dr. Rabinovitz admitted that she reviewed only exposure-related information in questionnaires, not the statements by counsel and claimants disclosing that the claims have been dismissed or are not pending mesothelioma claims. (Tr. 4351:19-24 (Rabinovitz)). Dr. Gallardo-Garcia testified that these statements were not ambiguous in the slightest, and presented a sample of responses to the Court. (Tr. 4683:7-4685:19 (Gallardo-Garcia)). By ignoring this information, as Dr. Gallardo-Garcia testified, Dr. Rabinovitz overstated the number of pending claims and the settlement/dismissal rate within her own calibration period. (Tr. 4690:14-25 (Gallardo-Garcia)).

Contrary to the proposed finding, Dr. Rabinovitz did *not* testify that she took into account the dismissals evidenced by PIQs through her settlement rate. The Committee's citation references testimony having to do with a different criticism made by Dr. Bates, that she did not take into account the age of pending claims.

Rather, Mr. Guy attempted to establish that Dr. Rabinovitz's settlement rate takes into account the PIQ dismissals through cross-examination of Dr. Gallardo-Garcia. Dr. Gallardo-Garcia, however, explained that Mr. Guy's argument is incorrect: because the dismissals occurred pre-petition, they should have been included in Dr. Rabinovitz's calibration period, meaning she should have had a lower settlement/dismissal rate than she used. (Tr. 4749:25-4750:24 (Gallardo-Garcia)). This proposed finding is thus simply erroneous.

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[445] **Hr'g Tr. 4206:18-4207:2, Aug. 9, 2013 (Rabinovitz).**

- **Dr. Bates said that Dr. Rabinovitz assigned incorrect payment years to several large payments. Dr. Rabinovitz explained that she chose to use the most recent claim closing date when multiple dates were found in the Garrison Database because the most recent date best reflects the actual value.[446] She further testified that her estimates were not affected by that decision since each claim identified by Dr. Bates as having an allegedly incorrect payment year was within her five-year calibration period.[447]**

RESPONSE: This issue arose because Dr. Rabinovitz assigned three large verdicts to the year contribution payments were made on those verdicts, rather than the verdict date or the payment date. As explained above in response to Proposed Finding of Fact #120, her post hoc rationalization that the payment date should be used instead, which places the verdicts within her calibration period, is incorrect.

- **Dr. Bates stated that Dr. Rabinovitz incorrectly assumed that all pending claims are resolved in 2010 and all future claims are resolved in the same year as they are diagnosed, which resulted in payments being made in earlier years and not being discounted enough. Dr. Rabinovitz testified, however, that she made those assumptions to simplify her calculation and they had no significant impact on her estimate.[448]**

RESPONSE: To the contrary, the FCR's brief admits, citing Dr. Rabinovitz's testimony, that this error has a two percent impact on her forecast, which is a significant sum

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[446] ***Id.*** **at 4201:12-4202:10; Hr'g Tr. 4332:18-23, Aug. 12, 2013 (Rabinovitz).**

[447] Hr'g Tr. 4202:11-4202:16, Aug. 9, 2013 (Rabinovitz); Hr'g Tr. 4332:11-17, 4332:24-4333:2, Aug. 12, 2013 (Rabinovitz).

[448] Hr'g Tr. 4205:4-4206:8, Aug. 9, 2013 (Rabinovitz).

given the size of that forecast, especially in combination with all the other errors pointed out by Dr. Bates. (FCR Br. at 36 n.117).

- **Dr. Bates asserted that Dr. Rabinovitz incorrectly valued Garlock's pending claims by not considering the age of pending claims, *i.e.*, that claims pending for longer settle for less. Dr. Rabinovitz testified that she accounted for that issue by assuming that 46 percent of claims in her base case and 60 percent of claims in her adjusted indemnity case would not be paid.[449] She further noted that Garlock's data did not demonstrate that average resolution amounts necessarily decreased based on the age of the claims.[450]**

RESPONSE: This proposed finding's response to Dr. Bates's criticism is a non sequitur. Dr. Bates's criticism was not about whether older claims would be paid, but rather how much claims are paid. He showed that claims pending for longer settled for less historically, and that the pending claims are older, on average (as of the petition date), than the claims in Dr. Rabinovitz's calibration period. (Tr. 4782:9-4783:16, 4784:20-4786:9 (Bates)).

- **Dr. Bates claimed that Dr. Rabinovitz applied the average settlement from the calibration period to the pending claims but failed to recognize that those claims are in jurisdictions where claimants received lower settlements. Dr. Rabinovitz explained that jurisdiction is one of many factors that could be considered, many of which cancel each other out; that she prefers to work with as much data as possible; and, therefore, relies on averages from thousands of claims rather than segregating certain jurisdictions for analysis; and that**

[449] ***Id.*** **at 4206:18-4207:2.**

[450] ***Id.*** **at 4207:6-9.**

claims frequently change venue, making it inappropriate to focus on the jurisdiction of claims in an estimate.[451]

RESPONSE: Dr. Rabinovitz's responses missed the mark because the criticism concerns pending claims, whose jurisdiction is already known and will not change. Thus, there is no reason not to take into account the jurisdictional mix, and adjust for the fact that the pending claims come from lower-value jurisdictions than the claims in Dr. Rabinovitz's calibration period.

- **Dr. Bates argued that Dr. Rabinovitz failed to take into account a trend showing that more and more claimants against Garlock are filing their Trust claims earlier. Dr. Rabinovitz testified, however, that asbestos trusts have a long history of paying claims and, therefore, Garlock and plaintiffs' attorneys were aware of trusts and accounted for them when settling claims.[452] Thus, Dr. Rabinovitz stated that any trust effects are already reflected in Garlock's historical claims experience.[453]**

RESPONSE: Dr. Rabinovitz only testified that "[p]resumably" Trust claims were already reflected in Garlock's settlements (Tr. 4210:5-6 (Rabinovitz)), but as described above, did not analyze whether Trusts were paying a backlog instead of the claims Garlock was settling (Tr. 4317:10-4318:21 (Rabinovitz)) or whether certain plaintiff firms pursued strategies such as delaying claims to avoid the impact of Trust claims (Tr. 4328:3-10, 4329:3-7 (Rabinovitz)).

She did not rebut or challenge Dr. Bates's conclusion, based on discovery from the DCPF facility ordered in this case, showing that more claimants are filing Trust claims before

[451] *Id.* at 4208:17-25, 4209:1-15.

[452] *Id.* at 4210:4-6, 4212:2-8.

[453] *Id.* at 4210:6-8.

they settle with Garlock, and that they receive less in settlement when they do so. (Tr. 4795:11-4801:6 (Bates)). But Dr. Rabinovitz did not account for this effect in her forecast.

- **Dr. Bates maintained that Dr. Rabinovitz incorrectly included defense costs in her estimate. Dr. Rabinovitz testified that she had a number of important reasons for doing so: (a) defense costs were an integral part of Garlock's decision-making, as argued by Dr. Bates; (b) defense costs are a necessary factor to consider when determining Garlock's solvency; (c) estimates of defense costs are always included in SEC filings; and (d) defense costs act as a proxy for trust administration expenses.[454]**

RESPONSE: As set out in response to Proposed Finding of Fact #129, the FCR has now acknowledged that defense costs should not be included, and moreover, defense costs are not a proxy for Trust administrative costs (Tr. 4759:18-4761:4 (Bates)).

- **Dr. Bates argued that that Dr. Rabinovitz mistakenly included pre-petition settlement amounts in her estimate. Dr. Rabinovitz testified that she estimated the values of settled-but-not-paid and disputed claims as placeholders to ensure that class of claims was not overlooked or undervalued.[455]**

RESPONSE: As set out in response to Proposed Finding of Fact #128, the FCR has now acknowledged that this figure should not be included in Dr. Rabinovitz's estimate, and moreover, Dr. Rabinovitz calculated this figure erroneously (Tr. 4761:13-4763:2 (Bates); Tr. 4688:1-4690:8 (Gallardo-Garcia)).

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[454] *Id.* at 4194:16-4195:24; Hr'g Tr. 4292:11-16, 4294:18-25, 4297:7-13, Aug. 12, 2013 (Rabinovitz).

[455] Hr'g Tr. 4188:25-4190:22, Aug. 9, 2013 (Rabinovitz); Hr'g Tr. 4200:16-4201:2, Aug. 12, 2013 (Rabinovitz).

- **Finally, Dr. Bates argued that Dr. Rabinovitz erred by using inconsistent methodologies to estimate different classes of pending claims. Dr. Rabinovitz explained that the methods she used to value pending, settled-but-not-paid, and disputed claims are consistent with the available data for each group of claims: (a) pending claims were valued using average indemnity values for Garlock claims closed during the calibration period; (b) settled-but-not-paid claims were valued based on Garlock's discovery responses; and (c) disputed claims were valued based on information provided by Garlock or, if no information was available, on average indemnity payments paid to law firms with disputed claims.[456]**

RESPONSE: Dr. Rabinovitz's response did not squarely address Dr. Bates's criticism, which was that when she removed contested settlements from the pending claim pool, she failed to properly correct the average value of the remaining claims. (Tr. 4761:13-4763:2 (Bates)). Dr. Rabinovitz had no response to this criticism.

iii. Dr. Charles Bates

133. Dr. Bates provided two estimates. The first used a novel methodology that differed from the standard method used by Drs. Peterson and Rabinovitz. The method does not use Garlock's history of resolving asbestos cases, but instead purports to determine how the cases would be resolved in hypothetical trials under a set of assumptions that are different from the existing tort system.

RESPONSE: Dr. Bates's methodology is not novel. As the Court noted in its Estimation Order, debtors have offered merits-based estimation methodologies in numerous asbestos

[456] **Hr'g Tr. 4186:6-15, 4188:25-4189:21, Aug. 9, 2013 (Rabinovitz).**

bankruptcy cases before a settlement occurred. Estimation Order ¶ 17 (citing *USG*, *W.R. Grace*, and *G-I Holdings* cases). Courts outside the asbestos bankruptcy context also routinely estimate disputed tort claims by analyzing the claimants' potential damages, the debtor's share of such damages, and the likelihood of the claimant succeeding. *See, e.g.*, *In re Continental Airlines Corp.*, 64 B.R. 858, 860-61 (Bankr. S.D. Tex. 1986) (estimating personal injury claims at zero because court determined claimants had no likelihood of success). Finally, in estimating these well-recognized parameters, Dr. Bates applied standard statistical and econometric techniques, and reported confidence intervals around his estimates, unlike Drs. Rabinovitz and Peterson. (Tr. 2705:23-2709:12, 4803:20-4804:24 (Bates)).

It is also false that Dr. Bates did not use "Garlock's history of resolving asbestos cases." Dr. Bates used that history in every facet of his estimate. For example, he used discovery from both current and resolved claimants to estimate the number of exposures claimants typical claimants would identify in cases against Garlock, which he then used to determine Garlock's share of damages. (Tr. 2795:20-2796:17 (Bates)). He used Garlock's verdict history to determine claimants' likelihood of success, and tested the representativeness of that verdict history by determining the likelihood of success implied by Garlock's historical settlements from the 2000s. (Tr. 2810:16-2813:5 (Bates)). Finally, he reconciled his liability estimate with Garlock's settlement history, showing that those settlements are consistent with Garlock's liability and the cost structure of mesothelioma litigation against Garlock. (Tr. 2824:2-2827:15 (Bates)). Dr. Bates displayed a far deeper knowledge of Garlock's history than Drs. Rabinovitz and Peterson did, who simply took Garlock's most recent settlements and projected them forward, without any kind of deeper quantitative analysis.

134. First, for present claims, Dr. Bates analyzes 367 jury verdicts found in news reports to see how they differed based on three variables—whether a plaintiff was alive or dead, the age of the plaintiff, and the state the plaintiff lived in—and then applies those results to forecast what a jury would award of each of Garlock's 3,932 pending mesothelioma claims if it were tried to verdict against all defendants.[457]

RESPONSE: Tellingly, the Committee cites to Dr. Peterson's false testimony to support all findings about Dr. Bates's method—not Dr. Bates's direct testimony or the Committee or FCR's cross-examination of Dr. Bates. Dr. Bates's compensatory damages estimate was not based solely on the 367 publicly reported jury verdicts. He estimated economic damages for each claimant using a model of economic damages that would be used in ordinary litigation and the claimant characteristics from the PIQ (Tr. 2782:3-2783:11 (Bates)), used publicly available mesothelioma verdicts to estimate non-economic damages (Tr. 2783:12-2784:2 (Bates)), verified the reliability using 1,200 publicly reported wrongful death verdicts (Tr. 4808:1-13 (Bates)), and used a regression not to "see how they differed" but rather to collect for observed selection bias in the verdicts that meant they were not representative of the larger claim pool (Tr. 2786:18-2787:20 (Bates)).

135. Dr. Bates then values at zero 1,755 of these pending claims based upon assumptions about who, in his view, has a viable claim based on his review of Mesothelioma Claim Questionnaire responses.[458]

RESPONSE: This proposed finding once again cites to Dr. Peterson rather than Dr. Bates's testimony about what he did. Dr. Bates did not value at zero 1,755 pending claims based upon "his view" about who has a viable claim, but rather because those claimants did not

[457] Hr'g Tr. 3908:2-3909:3, Aug. 8, 2013 (Peterson).

[458] *Id.* at 3909:13-3910:1.

identify contact with a Garlock product in response to the PIQ. (Tr. 2814:25-2815:5, 2816:13-2817:10 (Bates)). Thus, there is no evidence they could expose Garlock to potential legal liability.

Dr. Bates testified that he could have, in the alternative, assumed that claimants who did not respond to the PIQ were just as likely to have contact with Garlock products as those who did respond. He believed that would not be appropriate because individuals who already sued Garlock before the petition should know whether or not they have Garlock exposure. (Tr. 2940:25-2942:9, 2944:13-2945:24 (Bates)). Furthermore, the percentage of pending claimants with Garlock exposure was consistent with historical averages. (Tr. 2940:10-2940:14 (Bates)). In any event, Dr. Bates testified that if he had assumed a random distribution of non-responses as the Committee advocates, it would not have affected his estimate by more than five or six percent. (Tr. 2941:22-2942:1 (Bates)).

In addition, contrary to the testimony cited in this proposed finding from Dr. Peterson, Dr. Bates did not eliminate claims "based upon the Henshaw categories." (Tr. 3909:13-3910:1 (Peterson)). To the contrary, Dr. Bates assigned positive value to all claims where the claimant alleged contact with Garlock's products, regardless of which Henshaw category they were in. (Tr. 2814:25-2815:5, 2816:6-2817:13 (Bates)).

136. Next, Dr. Bates purports to eliminate the liability share he thinks should be borne by solvent co-defendants and bankruptcy trusts. Dr. Bates derives this share by assuming that any mention of another company in the questionnaire or elsewhere in discovery materials, trust claims, bankruptcy balloting materials, or Rule 2019 statements was sufficient for a "verdict" and allocates that company an equal share of liability in the

trial.[459] Dr. Bates finds 35 such entities, meaning that Dr. Bates divides his predicted verdict by 36, leaving Garlock with 1/36th of the liability of every case and eliminating 97 percent of liability.[460]

RESPONSE: This proposed finding once again cites to Dr. Peterson's testimony, not Dr. Bates's, and is replete with errors. In the first place, the proposed finding implies that Dr. Bates applied several liability ("leaving Garlock with 1/36th of the liability of every case") in every jurisdiction, which is contrary to his testimony. Dr. Bates testified at least five times that he applied the liability allocation rules under applicable state law, and also performed sensitivity tests where he assumed all jurisdictions were joint and several, and another where he assumed all jurisdictions had several liability. (Tr. 2779:8-15, 2789:2-5, 2802:14-2806:8, 2822:11-2823:10, 2932:3-2933:18, 2949:15-25 (Bates)). All confirmed his ultimate conclusion that Garlock's legal liability is significantly less than $125 million. *Id.*

Dr. Bates determined that the typical claimant would allege exposure to the products of thirty-five companies and Trusts in addition to Garlock not by counting "mentions" in discovery materials, but rather determining how many exposures to tort defendants' products plaintiffs identified in sworn discovery materials (including the product or company name as well as an allegation of exposure), as well as sworn statements of exposure in Trust claims and ballots. (Tr. 2855:1-8, 2796:12-17 (Bates)). This was reasonable, given that Trust claims require representations of exposure to the Trust's product, and ballots require representations of exposure to the debtor's product, as described more fully below.

137. Finally, Dr. Bates decides what fraction of cases plaintiffs would win. To derive this win percentage, Dr. Bates relied on data from the 1990s, when plaintiffs won

[459] *Id.* at 3910:6-3911:17.

[460] *Id.* at 3911:10-12, 15-23.

three out of 36 cases that went to trial against Garlock.[461] With this step, Dr. Bates eliminates another 92 percent of Garlock's liability for pending claims.[462]

RESPONSE: This proposed finding again cites Dr. Peterson's testimony, and is incomplete. Dr. Bates used the verdict history from the 1990s because he hypothesized that it best characterized claimants' win rate when exposure information is disclosed to the jury (Tr. 2810:16-2811:2 (Bates), but then tested that hypothesis for representativeness using Garlock's settlement history from the 2000s and the Posner model of the relationship between settlements and liability, which showed that the average likelihood of success is on the order of one percent (Tr. 2807:15-2808:1, 2811:12-23, 2812:7-2813:5, 2920:20-2921:2, 2956:23-24, 2960:24-2961:9, 4805:18-21, 4823:9-19 (Bates)). Neither the Committee nor FCR had any criticism of that test, which confirmed that Dr. Bates's eight percent likelihood of success was highly conservative and claimant-favorable.

138. Dr. Bates uses essentially the same methodology for future claims, although he simply eliminates a third of his 28,402 predicted future mesothelioma incidences based on his assumption that, in those cases, the claimants' mesotheliomas would not be related to asbestos.[463] That assumption is not widely shared among experts in the field, and Dr. Bates offers no persuasive rationale or substantiation for it.

RESPONSE: As described in the response to Proposed Finding #12, this proposed finding is false. It criticizes Dr. Bates for not using the nationwide incidence figure given by his incidence model—28,402. But Dr. Bates's incidence model is composed of asbestos-related mesothelioma and non-asbestos-related mesothelioma ("background" mesothelioma). Dr. Bates

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[461] *Id.* at 3911:24-3912:8.

[462] *Id.* at 3912:8-11.

[463] *Id.* at 3913:9-3914:14; Hr'g Tr. 4840:1-3, Aug. 22, 2013 (Bates).

sensibly used the asbestos-related portion of the curve to estimate future claims. (Tr. 2815:15-2818:14 (Bates)).

Contrary to this proposed finding, Dr. Bates did not assume any particular level of background incidence. Rather, the level of background incidence is a conclusion of his model, which determines the best fit of the background and asbestos-related curves to the SEER data. (Tr. 2726:17-21 (Bates)). The Committee and FCR nowhere criticized his model on its merits, despite having it explained to them in sixteen pages of Dr. Bates's expert report. (Report of Charles E. Bates (Feb. 15, 2013) (GST-0996) at 139-154).

It is telling that this proposed finding has no citation to the argument that some level of background mesothelioma "is not widely shared among experts in the field." That is because the only expert in this field called at trial—Dr. Garabrant—testified that "[t]here is a background rate of mesothelioma in all populations. And that means that mesothelioma occurs in all populations even in the absence of asbestos exposure, yes." (Tr. 245:12-20 (Garabrant); *see also* Tr. 308:11-309:23 (Garabrant) (summarizing extensive epidemiological literature on this subject)).

These criticisms of Dr. Bates are especially hypocritical because neither Drs. Rabinovitz nor Dr. Peterson used models of nationwide incidence to construct their estimates. They used models of *occupational incidence*—incidence arising out of industrial occupations—that do not attempt to model nationwide incidence. As a result, Dr. Rabinovitz has stated previously that it is "misleading" to compare those models to measures of nationwide incidence such as the total SEER data. (Expert Rebuttal Report of Dr. Francine F. Rabinovitz, *In re ASARCO LLC* (June 27, 2007) at 10(GST-6587)). It is equally misleading for the Committee to criticize Dr. Bates on the basis of his measure of nationwide incidence.

Finally, the criticism ignores that Dr. Bates's model is the most comprehensive and used the most data of all the incidence models offered in this case. Dr. Bates is plainly qualified to develop such a model. He developed the Nicholson-KPMG model upon which Dr. Rabinovitz relied. And his model incorporates twenty years of SEER data that was unavailable in 1992 when Nicholson-KPMG was developed and 1982 when Nicholson was developed. (Tr. 2726:17-21 (Bates)). Finally, Dr. Bates's model is the only model in the case that models nationwide incidence and all its components, as opposed to simply modeling occupational incidence. It is thus superior in every way to the models upon which Drs. Peterson and Dr. Rabinovitz relied. And again, *no-one* criticized Dr. Bates's model on its merits at trial.

139. Dr. Bates' novel method is problematic in several respects.

140. First, it is unrealistic. It assumes every case Dr. Bates deems viable will be tried to verdict. Dr. Bates' present and future analysis contemplates almost 19,000 mesothelioma trials.[464] But, in its entire history, Garlock has tried only 83 mesothelioma claims to verdict in the last 20 years, less than one-half of one percent of such claims asserted against it.[465] Clearly, Dr. Bates' method posits a grossly unrealistic number of trials.[466] Second, Dr. Bates assumes that no one, neither Garlock nor any other defendant in these trials, settles, when in fact both Garlock and most other defendants settle, rather

[464] *Id.* at 3908:2-3909:25; Hr'g Tr. 2973:15-2974:4, Aug. 5, 2013 (Bates); Hr'g Tr. 4840:19-25, Aug. 22, 2013 (Bates).

[465] ACC-519.

[466] Garlock's own management admitted that it would not have been possible for Garlock to try every case in the tort system because, even though Garlock had "more trial teams at the end than any other defendant in litigation," it "wouldn't have the trial teams to do it," and because "[t]he judges would not give you trial time to try the cases physically." O'Reilly Dep. 108:22-109:2, Feb. 2, 2013.

than running the risks of trial.[467] Finally Dr. Bates assumes that all exposure information in the case comes from the plaintiff when its own counsel have testified that they took steps to discover exposure information elsewhere.[468] These premises do not reflect the way that asbestos personal injury cases are brought, tried, or resolved in the tort system.

RESPONSE: Every statement in this proposed finding is false. As set out fully in the response to Proposed Finding of Fact #9, Dr. Bates did not assume that 19,000 trials would occur. Instead, he applied the analysis mandated by the estimation cases, which focus (as the law requires) on the merits of claims under state law to determine the allowed amount of claims.

Second, Dr. Bates never testified that he assumes no party settles, and the Committee's citation does not establish that fact. The Committee's assumption appears to be that a party cannot be assigned a share of liability at a trial if it has settled, which is incorrect. As explained in the memorandum from Robinson, Bradshaw & Hinson, P.A. upon which Dr. Bates relied, Garlock is in general protected against bearing the liability shares of settling parties found liable at trial. (Memorandum from RBH to Bates White re: Law of Apportioning Damages in Asbestos Cases at 1-10 (GST-1305)).

Finally, Dr. Bates did not testify that he assumed "all exposure information in the case comes from the plaintiff." Dr. Bates testified he assumed that "[w]hat is known or reasonably known by all the parties, both from the defense side as well as the plaintiffs, are under consideration by the parties who are adjudicating the liability." (Tr. 2772:6-9 (Bates); *see also* Tr. 2912:13-15 (assuming "the information which is known **by both parties** is made available to the decision makers, the triers of those outcomes"); Tr. 4849:5-4849:14 (Bates) (same)).

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[467] Hr' g Tr. 2918:22-2919:14, Aug. 5, 2013 (Bates); Hr'g Tr. 3669:3-16, Aug. 7, 2013 (Rice).
[468] Hr'g Tr. 2308:17-25, 2340:1-2344:8, Aug. 1, 2013 (Turlik).

141. Next, Dr. Bates' conclusion that liability for verdicts would be split evenly 36 ways, and therefore Garlock would pay only 1/36th of any verdict, is wrong for several reasons. Dr. Bates did not adequately account for differences among the jurisdiction in the law pertaining to joint tortfeasors. For example, in many states, under the principles of joint and several liability, an unsuccessful trial defendant might bear the entire judgment in a mesothelioma case, and incur the costs and risks of pursuing any contribution claims against other potentially responsible actors. "Hybrid" states recognize joint and several liability in some situations but only several liability in other. Dr. Bates indulges in a dubious assumption in supposing that Garlock's potential liability would be several in all such states. In New York, for example, a jury in a mesothelioma case found Garlock reckless,[469] a determination that held it liable for 100 percent of the plaintiffs' damages despite what in general is a comparative scheme in that state.[470] Dr. Bates admitted that he did not present in his expert report or direct testimony the results of any calculations under these various scenarios.[471]

RESPONSE: This proposed finding is false, for the same reasons as Proposed Finding of Fact #136. Dr. Bates applied the liability allocation rules under applicable state law, as well as sensitivity tests where he assumed all jurisdictions were joint and several and all jurisdictions

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[469] ACC-404. Although that verdict was ultimately overturned, the appellate ruling did not address the finding of recklessness. *See In re Eighth Judicial Dist. Asbestos Litig. (Reynolds v. Amchem Prods., Inc.)*, 32 A.D.3d 1268 (N.Y. App. Div. 2006), *rev'd*, 872 N.E.2d 232 (N.Y. 2007). Verdicts returned just days before the hearing show that the prospect of a recklessness finding remains a serious risk to defendants who try mesothelioma claims in New York. *See* ACC-750a at 8 (finding that Cleaver Brooks acted with "reckless disregard"); ACC-750b at 9 (same as to Cleaver Brooks and Burnham); ACC-750c at 12 (same as to Cleaver Brooks); ACC-750d at 9 (same as to Cleaver Brooks and Burnham).

[470] *Compare* Hr'g Tr. 2373:14-2374:22, Aug. 1, 2013 (Turlik); ACC-747.

[471] Hr'g Tr. 2935:3-24, Aug. 5, 2013 (Bates).

had several liability. (Tr. 2779:8-15, 2789:2-5, 2802:14-2806:8, 2822:11-2823:10, 2932:3-2933:18, 2949:15-25 (Bates)). Dr. Bates testified that he disclosed the results of those tests in his reliance materials. (Tr. 2937:3-9 (Bates)).

142. Dr. Bates' calculation that Garlock would share a verdict with 35 other entities also assumes that the average verdict would be against Garlock, 13 other solvent co-defendants and 22 bankrupt entities, or trusts.[472] The method by which Dr. Bates arrives at these numbers contains errors.

143. First, Dr. Bates counts as responsible co-defendants any company referenced in discovery materials such as interrogatory responses or depositions.[473] But such a reference does not itself establish liability. As Garlock's own defense counsel confirmed, defendants have the burden of proving a co-defendant's liability if they wish to allocate responsibility to that codefendant.[474] And, on average, Garlock shared its verdicts with less than three co-defendants during its entire verdict history.[475]

RESPONSE: As explained in the response to Proposed Finding of Fact #136, Dr. Bates did not assign a liability share merely because a company was "referenced in discovery materials," but rather only those co-defendants where the discovery record "identified both the fact that they were exposed to a product and whose product it was or the brand of that product." (Tr. 2947:6-2947:17 (Bates)). Given that the Committee contends Garlock should be assigned liability in every case where a claimant alleges exposure, it is unclear on what basis they can

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[472] *Id*. at 2949:2-4.

[473] *Id*. at 2947:6-17.

[474] Hr'g Tr. 2378:6-16, Aug. 31, 2013 (Turlik).

[475] Hr'g Tr. 3921:23-25, 3922:17, Aug. 8, 2013 (Peterson).

object to Dr. Bates applying the same standard for assigning fault to other companies, in the event Garlock is held liable.

Dr. Bates explained why Garlock's verdict history is not an appropriate guide to the number of responsible defendants. Verdicts are in general unrepresentative of average claims. (Tr. 2738:16-2739:6 (Bates)). This is especially true in the few verdicts against Garlock because not all exposure evidence was disclosed. (Tr. 4813:17-25 (Bates)).

Nor did the Committee and FCR give any reason to doubt that the typical claimant had 35 exposures in addition to Garlock. Garlock was sued in the vast majority of mesothelioma cases by the time of its petition. Drs. Rabinovitz and Peterson have estimated that literally dozens of other companies have liability for that same pool of claims. (Tr. 4816:24-4817:12 (Bates); Tr. 4054:20-4058:20, 4073:18-4074:18 (Peterson); Peterson Cross-Examination Demonstrative Slides at 13 (GST-8014)).

Garlock, by contrast, according to Dr. Peterson, was a minor producer of asbestos products that did not make a significant product and was not a significant defendant, such that "in the scheme of all of the asbestos-containing products, gaskets are not the central source of asbestos exposures, I think there's no question about that." (Tr. 4036:1-21, 4038:18-4039:20 (Peterson)). It would be entirely unreasonable to assign Garlock half the liability, whereas Dr. Bates's estimate of 35 additional exposures is both conservative and consistent with everything shown at trial about asbestos litigation.

144. In arriving at his figure of 22 bankrupt entities with which Garlock would share a verdict, Dr. Bates looked to trust claims he found in questionnaire responses,

bankruptcy ballots, and Rule 2019 statements.[476] None of these sources, however, can be equated to a share of liability in the context of a jury verdict.

145. Just because someone makes a claim to a trust does not mean that the bankrupt company that formed the trust would have been assessed a share of the verdict in a trial. As the Committee's witnesses explained, not every claim to a trust is completed or paid, and many claims that trusts do pay are paid because of the application of presumptive exposure criteria, such as site lists, that do not apply in the tort system.[477]

RESPONSE: Dr. Bates assigned liability shares on the basis of Trust claims and ballots because those documents contain assertions of exposure to those entities' products. (Tr. 2796:12-17 (Bates)). Indeed, these entities were typically liable for products that everyone admits were far more dangerous than Garlock's products. (Tr. 2802:14-2803:19, 2946:24-2947:11, 2950:5-2951:6 (Bates)).

The Committee's argument that Trust claims do not entail assertions of exposure is belied by the language of the claim forms themselves. As Debtors showed, many claim forms contain affidavits or other sworn statements asserting exposure to the Trust's products. (*See, e.g.*, Declaration of Howard Ornstein (GST-3873)). Even claims based on presumed work sites, upon which the Committee hinges its argument, contain assertions of exposure to specific debtor products, as the Committee's attempted cross-examination of Prof. Brickman with a work site claim against the Babcock & Wilcox Trust showed. (Tr. 1321:13-1322:25 (Brickman); Treggett Babcock & Wilcox Trust Claim at Waters 02491 (GST-5481)). Courts presented with the "presumed site" excuse in the tort system have rejected it. (Tr. 1183:5-1185:23, 1320:10-1321:7

[476] Hr'g Tr. 2950:5-24, Aug. 5, 2013 (Bates).

[477] Hr'g Tr. 3709:18-3710:20, Aug. 7, 2013 (Patton).

(Brickman); Transcript of Trial at 71-74, *Stoeckler v. Am. Oil Co.*, No. 23451 (Tex. Dist. Ct. Angelina County Jan. 28, 2004) (GST-0661)).

Even Mr. Patton's testimony contradicts the Committee's position. As Mr. Patton admitted during his examination, the trust distribution procedures ("TDP") that govern the trusts require claimants to demonstrate meaningful and credible exposure to the debtor's products. (Tr. 3726:19-3729:13 (Patton)). With respect to "presumed site" claims, Mr. Patton admitted that persons who relied on a presumed site would most assuredly be able to prove exposure to that debtor's products if required to do so. (Tr. 3736:24-3737:21 (Patton)). Mr. Patton confirmed that the debtor's tort system history is what informs the selection of eligible sites—presumed exposure sites are those where the company had been paying claims in the tort system, acknowledged that its asbestos-containing products were present, and had been found liable to claimants. (Tr. 3737:22-3739:5 (Patton)).

Other witnesses aligned with the Committee affirmed that they only file Trust claims based on actual exposures. (1/4/13 Simon Dep. at 134:6-14; Tr. 3503:4-12 (McClain)). In short, there is no reason to doubt the plain language of the Trust claims, which assert exposure to the Trust's products.

Finally, contrary to this proposed finding, Dr. Bates did not rely on 2019 statements in reaching his opinion regarding 36 total exposures. (Tr. 3027:14-19 (Bates)).

146. Nor do bankruptcy ballots constitute admissions of exposure to products such that they could "count" as shares in a verdict.[478] They reflect at most a determination by counsel that a claimant he or she represents *might* have a claim affected by the

[478] Hr'g Tr. 3682:13-25, Aug. 7, 2013 (Patton).

bankruptcy plan creating the trust.[479] As plaintiffs' counsel explained, they generally completed bankruptcy ballots for claimants if they could not rule out exposure to a bankrupt's products, a far different standard than one which would establish liability in a tort suit.[480]

RESPONSE: The plain language of ballots once again refutes the Committee's argument. The ballots themselves clearly require an assertion of exposure to the debtor's products. For instance, the 2006 Owens Corning solicitation required attorneys to certify, under penalty of perjury, that each voting claimant "ha[d] experienced Owens Corning Exposure," defeined as "meaningful and credible exposure" to an asbestos product "supplied, specified, manufactured, installed, maintained, or repaired by Owens Corning and/or any entity . . . for which Owens Corning has legal responsibility." (2006 Owens Corning Class A7-M Ballot at 9 (GST-1448)). Judge Fitzgerald has confirmed that that when an asbestos claimant casts a ballot, "[t]hey're taking a position here that says they have a legitimate claim, they've sworn to that fact under penalty of perjury, and the ballot is what determines that." (Hearing Transcript at 43:5-17, *In re Pittsburgh Corning Corp.*, No. 00-22876 (Bankr. W.D. Pa. Jan. 13, 2010) (Docket No. 7422)).

And again, Mr. Patton's testimony contradicts the Committee's position. The Committee ignores Mr. Patton's admission that a claimant must have a good faith basis to believe he/she was exposed to a debtor's products in order to cast a ballot in that debtor's bankruptcy case, and that individuals voting in a bankruptcy case are identifying themselves as creditors. (Tr. 3693:6-9, 3697:8-11, 3759:12-19, 3774:11-12 (Patton)). Mr. Patton expanded on this point in his

[479] Hr'g Tr. 3692:3-3694:7, Aug. 7, 2013 (Patton).

[480] *E.g.*, Belluck & Fox 30(b)(6) Dep. (Belluck) 90:4-92:2, Dec. 14, 2012; David Law Firm 30(b)(6) Dep. (Cooper) 50:22-51:6, Feb. 1, 2013; Waters & Kraus 30(b)(6) Dep. (Kraus) 95:15- 96:18, Jan. 14, 2013.

testimony about disputes in both the *Owens Corning* and *Pittsburgh Corning* bankruptcies, where debtor's counsel represented in each case that a ballot reflected an allegation of exposure to the debtor's product. (Tr. 3770:24-3773:17, 3775:24-3777:17 (Patton)).

147. Finally, a law firm's Rule 2019 statements filed in a bankruptcy case cannot inform anyone about whether or not the bankrupt would ultimately bear a share of liability for the plaintiff's injuries. The 2019 filings are designed to inform the court and other parties of the identity of a lawyer's clients when the lawyer acts for multiple entities in a bankruptcy case, not whether those entities are going to file a claim or participate in any particular way in the case.[481]

RESPONSE: As noted above in response to Proposed Finding of Fact #146, Dr. Bates did not rely upon 2019 statements.

148. Dr. Bates' use of an 8.3 percent "win rate" for plaintiffs against Garlock at trial is also unrealistic because it is based on data from the 1990s. The litigation environment for Garlock changed dramatically in the 2000s, as mesothelioma cases began to form a larger part of Garlock's case mix and plaintiffs developed their case against the company.[482] As a result, Garlock moved from being a peripheral defendant to a principal defendant.[483] The transition from peripheral defendant to principal defendant is not reversible.[484] Indeed, Garlock lost 36 percent of the cases it took to verdict between 2001 and 2010.[485]

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[481] Hr'g Tr. 3788:5-18, Aug. 8, 2013 (Patton).

[482] *See* section I.B.1, *supra*.

[483] Hr'g Tr. 3793:10-3796:3, Aug. 8, 2013 (Hanly).

[484] Hr'g Tr. 3435:10-18, Aug. 6, 2013 (Hanly).

[485] Hr'g Tr. 2572:4-16, Aug. 1, 2013 (Magee).

RESPONSE: The Committee once again omits to mention that Dr. Bates confirmed the conservatism of his eight percent estimate based on Garlock's verdict history by determining the implied liability likelihood in the cases *settled* during the 2000s. (*See* response to Proposed Finding of Fact #137). He determined that the average implied likelihood of plaintiff success was one percent. Neither the Committee nor the FCR presented any evidence to contradict this test, or their own estimates of average likelihood of success. (*See, e.g.*, Tr. 4366:23-4367:2 (Rabinovitz)). Finally, the Committee focuses on Garlock's loss rate of 36 percent over the entire decade of the 2000s, but after Garlock began spending more to defend the cases asserted against it, its win rate improved greatly. Garlock lost only one significant mesothelioma verdict after 2005, which is on appeal, and in which (as Debtors showed in this trial) the plaintiff failed to disclose material exposure evidence during the case. (Tr. 3082:8-3084:6 (Magee)).

149. Dr. Bates presented a second estimate of liability under the claims resolution procedures set forth in the Plan of Reorganization filed by Garlock in late 2011. This estimate is irrelevant and unhelpful for the present task, which is to measure the overall financial burden of mesothelioma claims on the estate. The Committee and the FCR assert that the plan may be unconfirmable for many different reasons.[486] The constituency of asbestos claimants, moreover, will likely reject the plan as an assault on their rights and will not support it.

150. Second, the estimate is irrelevant because, as a practical matter, Garlock's plan will not likely be implemented in its current form. Among other things, the plan

[486] The Committee filed objections to the disclosure statement arguing that the plan is unconfirmable for a variety of reasons. Objection of the Official Committee of Asbestos Personal Injury Claimants to the Debtors' Proposed Disclosure Statement, filed January 19, 2012 [Dkt. No. 1808]. The Court has not yet ruled on those objections, but finds that they raise important issues.

contemplates an injunction pursuant to 11 U.S.C. § 524(g). To obtain § 524(g) protection for Garlock, the plan must be approved by at least 75 percent of asbestos creditors.[487] The asbestos creditors, however, are unlikely to approve Garlock's plan as currently drafted.[488]

RESPONSE: Dr. Bates was the only expert who offered a projection of costs to resolve claims in bankruptcy—under the only plan proposed in this case—and, as is evident from these proposed findings, the Committee and FCR did not challenge or rebut that projection. Dr. Peterson did not provide such a projection even though he admits that bankruptcy can result in cost savings that result in the debtor paying billions less than it would have paid to resolve claims in the tort system. (10/22/03 Tr. at 144-51, *In re Babcock & Wilcox* (Peterson) (GST-7324) (opining that "the liability under the trust distribution procedure is well under half of what the liability would have been if Babcock & Wilcox had continued in the tort system," saving over $6 billion); Mark A. Peterson, Preliminary Expert Report on W.R. Grace Trust (March 2009) at 1 (GST-6572) ("Using the TDP of the proposed reorganization plan, the Trust's liabilities were lower than its liability would be in tort litigation. The TDP could save up to $1 billion in liabilities compared to litigation.")). In the W.R. Grace case, asbestos claimants approved a plan that paid claimants approximately 25% of Dr. Peterson's "tort system expenditures" forecast, while leaving Grace's shareholders with billions of dollars in equity. (Tr. 3092:18-3094:16 (Magee)).

For their proposed finding that asbestos claimants "are unlikely to approve Garlock's plan as currently drafted," the Committee relies on the testimony of Mr. Joe Rice, who is the chair of the Committee. That testimony is not credible evidence; it is a litigation position. There

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[487] 11 U.S.C. § 524(g)(2)(B)(IV)(bb).

[488] Hr'g Tr. 3610:11-3622:16, Aug. 7, 2013 (Rice).

is every reason to expect that asbestos claimants would accept a plan based on a fair estimation of Garlock's liabilities.

151. Finally, at trial Dr. Bates provided an estimate of Garlock's mesothelioma liability through 2059 using his pre-bankruptcy methodology, based on Garlock's own resolution history.[489] Using that methodology, he estimates a liability range of $330 million to $670 million on a net present value basis.[490]

RESPONSE: Dr. Bates did not "estimate . . . Garlock's mesothelioma liability through 2059 using his pre-bankruptcy methodology." As he did in the tort system, Dr. Bates projected what Garlock would have spent had it remained in the tort system, to show that Dr. Peterson and Dr. Rabinovitz's forecasts are too high on their own terms. Dr. Bates testified clearly and unequivocally that these figures are not appropriate measures of Garlock's legal liability or allowed claims in this bankruptcy case.

G. Medical and Science Issues

152. There is a ongoing debate in the medical literature between those that believe exposure to low dose of chrysotile can cause mesothelioma and those that hold the opinion that exposure to chrysotile cannot cause mesothelioma except in extremely high doses.[491]

RESPONSE: The Committee misuses snippets of testimony from Dr. Weill about a debate on chrysotile. As Dr. Weill explained, whatever debate remains relates only to the issue of whether it is tremolite (or another contaminate in the chrysotile ore) that is the mesothelioma-causing agent in the few populations with extremely high exposures. (Tr. 1056:25-1067-6 (Weill)). Whatever may be the cause of mesothelioma in highly exposed chrysotile miners—the

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[489] Hr'g Tr. 2824:4-2827:15, Aug. 2, 2013 (Bates).

[490] *Id.*

[491] Hr'g Tr. 1048:3-1049:13, 1056:21-1057:6, 1058:2-23, July 25, 3013 (Weill).

populations where some advocate that chrysotile fiber exposure is massive enough to cause mesothelioma—no *Daubert*-compliant science establishes that low-dose chrysotile exposure is a real world cause, and it is certainly not a legal cause in the context of massive exposures to amosite-containing insulation products. (*See* Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions filed 7/3/13).

153. For more than thirty years, manufacturers of chrysotile asbestos products, including Garlock, have defended lawsuits involving their products by asserting the low dose chrysotile defense.[492] The "low dose chrysotile defense" addressed in this proceeding was raised in every mesothelioma case that Garlock faced as a defendant in the tort system.[493]

RESPONSE: The Court heard up-to-date evidence on chrysotile, some of which could not have been presented in cases tried before this proceeding, because it relies on more recent studies and testimony not previously obtained. For example, Garlock did not previously have the concession of Dr. Brody that the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:7 (Brody).

154. The low dose chrysotile defense was taken into account in deciding whether and at what price to resolve mesothelioma cases against Garlock.[494]

RESPONSE: The primary factor influencing settlement was cost of defense, as the evidence at trial demonstrated.

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[492] Hr'g Tr. 3635:24-3636:2, Aug. 7, 2013 (Rice).

[493] Hr'g Tr. 3464:7-20, Aug. 7, 2013 (McClain); Hr'g Tr. 3087:21-3088:10, Aug. 5, 2013 (Magee).

[494] Hr'g Tr. 1385:17-1386:4, July 26, 2013 (Magee); Hr'g Tr. 3122:6-14, Aug. 5, 2013 (Magee); Hr'g Tr. 2531:2-9, Aug. 1, 2013 (Turlik).

i. Asbestos Released by Garlock Products

155. As Dr. Longo explained, Garlock's claim that the asbestos in its gaskets were "encapsulated" and, therefore, harmless did not hold up once the gaskets were cut or abraded in any fashion.[495] The synthetic rubber binder does not penetrate the asbestos fiber bundles contained in the manufactured product which contain hundreds, if not thousands, of individual asbestos fibers. When the product is cut or abraded, the fiber bundles are ripped open, releasing those individual fibers.[496]

RESPONSE: In a 1970 article titled "In Partnership for Prevention," Dr. Selikoff published: "It is fortunate that the greatest part of (the asbestos in construction materials) has been in products in which the asbestos is locked in – that is, it is bound with cement or plastics or other binder so that there is no release, certainly no significant release, of asbestos fiber in either working areas or general air." (Tr. 621:4-622:4 (Liukonen)).

The contrary testimony Dr. Longo gave on this subject is supported only by his own conjecture. He cites no publications or empirical data to explain his opinions, except that he does not see evidence of encapsulation in his gasket removal studies, which suffer from several methodological problems. (Tr. 1479:22-23 (Longo)); *see* Response to Finding of Fact #60, above; *see also Daubert* Briefing on Industrial Hygiene. Rather, he could only state that "You can't, *in my opinion*, you cannot take a product that contains 70 to 80 percent asbestos and completely encapsulate it with 20 to 30 percentage synthetic rubber. It's almost the other way around." (Tr. 1479:2-5 (Longo)) (emphasis added). This is not the type of reliable foundation upon which credible scientific opinions are based.

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[495] Hr'g Tr. 1478:6-23, July 29, 2013 (Longo).

[496] *Id*. at 1479:10-23.

See also Gen. Elec. Co. v. Joiner, 522 U.S. at 137, 146 (1997): "nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered."

156. The actual concentrations of asbestos dust measured during fabrication and removal of asbestos gaskets ranged widely from Mr. Boelter's "non-quantifiable" values of less than .007 f/cc,[497] to Mr. Liukonen's 0.13 f/cc for hand scraping with no controls,[498] to the 1.3 f/cc average for the MAS fabrication studies,[499] to the MAV fabrication range of 2.2 to 2.3 f/cc,[500] to Dow Chemical's 2 to 5 f/cc range for cutting gaskets,[501] to the Industrial Hygiene Foundation study's finding of 4.58 f/cc for removing a Garlock sheet gasket,[502] to the MAS range for removal by a wire brush powered by an electric drill of 15 to 31 f/cc,[503] to the Dow Chemical power wire brush removal of 18 f/cc,[504] to the Shell Oil Company power wire brush removal of 28.4 f/cc.[505]

RESPONSE: With this proposed finding (coupled with Proposed Finding of Fact #157 below), the Committee hopes the Court will ignore the flaws in the MAS gasket experiments and instead characterize the extremely high levels they generated as merely the high end of a wide range of possible exposures. To do so would be insupportable.

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[497] Hr'g Tr. 674:24-25, July 24, 2013 (Boelter).

[498] Hr'g Tr. 584:5-8, July 24, 2013 (Liukonen).

[499] Hr'g Tr. 1475:6-13, July 29, 2013 (Longo).

[500] *Id.* at 1476:10-13.

[501] Hr'g Tr. 921:24-922:2, July 25, 2013 (Henshaw).

[502] Hr'g Tr. 1514:11-24, July 29, 2013 (Longo).

[503] *Id.* at 1499:14-1500:10.

[504] *Id.* at 1521:21-1522:2.

[505] Hr'g Tr. 604:4-605:6, July 24, 2013 (Liukonen).

As discussed in detail in Debtors' Reply on Industrial Hygiene Experts at 23-26, Mr. Liukonen explained that the MAS removal results are orders of magnitude higher than all other reliable gasket removal data that has been published in the peer reviewed literature, and all of the gasket removal data from the U.S. Navy gasket study, all of which are below the OSHA short term exposure limit. (Tr. 550:16-554:14, 554:21-555:1 (Liukonen); *see also* Liukonen Demonstrative Slides at 42 (GST-16004)).

The MAS removal results only seem relatively normal when compared to the handwritten data sheets reflecting episodic, "worst case scenario" measurements of atypical activities. (*See* Tr. 604:4-605:19 (Liukonen)). (Note that the high end of Dr. Longo's power wire brushing range exceeds even the "worst case scenario" devised by the Shell workers.) In any event, it is not appropriate for the Court to extrapolate data from worst case scenarios to typical workplace scenarios faced by the claimants in this bankruptcy. (*See* Tr. 2015:3-10 (Brodkin)); *Gen. Elec. Co. v. Joiner*, 522 U.S. at 146. For more information and record citation on the unreliability of the handwritten data sheets cited in this proposed finding (Dow Chemical, IHF, Shell Oil Company), *see* Debtors' Brief on Industrial Hygiene Experts at 31-32; Debtors' Reply on Industrial Hygiene Experts at 26-27; Witness Appendix 11. Longo at 17.

As explained in Responses to Proposed Findings of Fact #60 and #61 above, the MAS fabrication experiment was not designed, and did not in fact, simulate actual workplace fabrication methods. (Tr. 1581:4-1582:12 (Longo); Tr. 1702:4-14 (Shoemaker) ("I wouldn't expect to see that in a production environment.")). Thus, the results are not reliable evidence of any potential real world exposures that would have been faced by likely claimants in this case. The same goes for the MVA (not "MAV") fabrication range, because MVA used the exact same

equipment and the exact same faulty methods and protocol as MAS. (Tr. 1580:23-1581:3 (Longo)).

157. The specific level of airborne asbestos dust generated from work with gaskets and packing fluctuates due to the many variables associated with that work including the size of the flange, the type of gasket used—full face or ring, the method used to remove the gasket, the thickness of the gasket and the temperature of the system in which the gasket was encased.[506]

RESPONSE: *See* Response to Proposed Finding of Fact # 156, above. Again, Dr. Longo provides no support for this opinion, which is pure conjecture. (*See also Gen. Elec. Co. v. Joiner*, 522 U.S. at 137, 146 (1997) (Courts not required to "admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert.")).

158. However, the primary factor that dictates the level of asbestos dust generated by the removal of Garlock gaskets is the amount of residue that is left on the flange after the gasket is scraped off.[507]

RESPONSE: The reliable studies in the peer reviewed scientific literature show that the range of exposures reported when gaskets are removed using typical methods, regardless of the amount residue left on the flange face, is not significant from an industrial hygiene perspective. (Tr. 550:16-554:14 (Liukonen); Tr. 850:22-854:6 (Henshaw); Henshaw Demonstrative Slides at 33 (GST-16003)).

159. In the MAS studies, for example, the concentration of asbestos dust measured during power wire brushing ranged from 0.4 f/cc when the gasket simply fell out

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[506] Hr'g Tr. 1505:5-1507:4, July 29, 2013 (Longo).

[507] *Id*. at 1496:16-1497:4.

and for the most part remained intact, to 21 f/cc when the gasket was tightly adhered.[508] Accordingly, the difference in the results of Dr. Longo's studies and those of Mr. Boelter is readily explained by the fact that the gaskets removed by Mr. Boelter were removed intact with little residue while those in the MAS studies were tightly adhered to the flange face necessitating the removal of substantial gasket residue by mechanical means.[509]

RESPONSE: *See* Response to Proposed Finding of Fact #53, above. The Committee and Dr. Longo's description of "intact" is clearly different than Mr. Boelter's, who explained that for those removed gaskets he described as being "intact," when removed, there was still residue that still had to be removed. (Tr. 744:1-14 (Boelter)). Some of the gaskets Mr. Boelter studied were "pulverized," and many looked just like the gasket in the photo the Committee's attorney displayed during cross examination. (Tr. 744:15-20, 749:10-19 (Boelter)).

And again, unlike Dr. Longo's results, Mr. Boelter's results (which were published in the peer reviewed literature in 2011) are consistent not only with the results of 29 other gasket and packing studies, but also the other reliable published data on gasket removal, and the data reported in the U.S. Navy gasket study. (Tr. 632:25-633:11, 671:5-672:19 (Boelter); Tr. 550:16-554:14 (Liukonen); Liukonen Demonstrative Slides at 39, 42 (GST-16004)).

160. Regarding which set of measurements is more reliable, Mr. Shoemaker's testimony was helpful. He testified about his experience observing and supervising thousands of shipyard workers who fabricated, installed and/or removed asbestos-containing sheet gaskets and packing, the sequencing of activities that would take place during the overhaul of Naval vessels, as well as the safety controls and regulations

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[508] *Id*. at 1504:13-1505:4.

[509] Hr'g Tr. 742:12-744:14, July 24, 2013 (Boelter), Hr'g Tr. 1494:23-1495:8, 1504:23-1505:4, 1522:14-1523:10, 1528:4-12, July 29, 2013 (Longo).

pertaining to asbestos gaskets and insulation.[510] He confirmed that Dr. Longo's videotapes depicting the tools and methods pertaining to the fabrication and removal of asbestos sheet gaskets were substantially similar to the ways in which asbestos gaskets were fabricated and removed by real-world workers in the shipyard and aboard ships during overhauls.[511]

RESPONSE: See Response to Proposed Finding of Fact # 61, above. The Committee's cited snippets of testimony on Mr. Shoemaker's opinions about the methods depicted in Dr. Longo's videos fails to encompass the true nature of Mr. Shoemaker's complete testimony, in which he explained that:

> 1. The "preferred" method of making gaskets was for the gasket room workers to fabricate them in bulk using machinery to cut the gaskets and place them in packages for the pipefitters to take to the ship, which is not what Dr. Longo's fabrication experiment measured. (Tr. 1669:13-1670:10 (Shoemaker)).
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> 2. When "occasionally" an individual had to use the flange face to tap out an individual gasket, he did not do it the way Dr. Longo did it. (Tr. 1669:13-1670:10, 1671:1-9, 1702:4-1703:1 (Shoemaker)). (Recall that Dr. Longo admits his fabrication experiment was an attempt to detect fibers, and was not intended to simulate the actual work experience of any individual worker. Tr. 1580:23-1582:12 (Longo)).
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> 3. Gaskets were not removed in the way that was depicted in Dr. Longo's video. (Tr. 1678:1-14 (Shoemaker)).

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[510] Hr'g Tr. 1641:19-1648:11, 1669:13-1670:25, 1685:3-1688:5, July 29, 2013 (Shoemaker).

[511] *Id.* at 1671:10-14, 1679:3-11.

161. Regardless of where on the spectrum of exposures such a worker's task falls, he or she will still be exposed to an amount of asbestos that well exceeds background levels. In fact, the potential inhalation of asbestos from the low end of occupational exposures to gaskets and packing is nearly a thousand times higher than any ambient air levels.

RESPONSE: This is a lawyer argument, unsupported by citation. Comparisons of this nature do not appear in the peer-reviewed literature; rather, scientific comparisons on total dose employ fiber years as a measure of exposure (Tr. 1796:25-17 (Templin)). And as several witnesses explain, the proper comparison is to the levels at which a statistically increased risk of disease occurs. (Weill Rebuttal Report (GST-15183) at 11). Courts also require comparison to groups that have been shown to have an elevated risk of disease. *White v. Dow Chem. Co.*, 2007 WL 6948824, *5 (S.D. W. Va. Nov. 29, 2007) (noting that the plaintiff "must prove the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure to the defendant's toxic substance before he or she may recover."). The unreliability of comparing to alleged ambient levels approach is also addressed in the rebuttal report of Dr. Anderson. (Anderson Rebuttal Report (GST-15144) at 3, 19, 22).

Moreover, as explained in the briefing on the *Daubert* motions and in the trial testimony, the Committee experts' choose unreliable data about gasket removal and compare it to their cherry-picked background level, which is arbitrarily low—much lower than well documented ambient levels. (Still Expert Report (GST-15173) at 42-43; Weill Expert Report (GST-15183) at 22, (ambient levels of 0.02 have been reported and are not associated with increased risk of disease).

162. For example, one day working in an environment with a concentration of 0.1 f/cc would lead to the potential inhalation of 384,000 fibers compared to a single day's worth of ambient air exposure that would only amount to 432 fibers.[512]

RESPONSE: As with the previous proposed finding, this is a lawyer argument based on a series of assumptions, and is not a fact that provides meaningful information to assess someone's exposure to asbestos.

Comparisons of this nature do not appear in the peer-reviewed literature, rather scientific comparisons on total dose employ fiber years as a measure of exposure. (Tr. 1796:25-17 (Templin)). Moreover, as explained in the briefing on the *Daubert* motions and in the trial testimony, the Committee experts' choice of background levels is arbitrarily low. *See* Response to Proposed Finding of Fact # 161, above.

163. At the higher levels of exposure caused by the removal of gaskets by power wire brushing, it would only take 41 minutes of that activity to inhale a lifetime's worth of asbestos at ambient air concentrations.[513]

RESPONSE: As with Proposed Findings of Fact # 161 and 162, this statement is an opinion based on a flawed assumption. This is testimony by Mr. Templin of a mathematical calculation the Committee asked him to make based on a gasket removal level the Committee told him to assume and which is not representative of typical real world work with gaskets. (Tr. 1752:6-1753:13 (Templin)). The gasket removal level assumed was 30 f/cc, which is orders of magnitude higher than that reported in the peer reviewed scientific literature, except for a result reported in Dr. Longo's paper. (Tr. 554:15-555:18 (Liukonen)). The unreliability of Dr. Longo's paper is discussed in Debtors' Brief on Industrial Hygiene Experts at §§ V, VI; Debtors'

[512] Hr'g Tr. 484:4-485:18, July 23, 2013 (Sporn).

[513] Hr'g Tr. 1752:6-1753:13, July 30, 2013 (Templin).

Reply on Industrial Hygiene Experts at §§ III.B., IV.A., IV.C., IV.D.; Witness Appendix 11. Longo at 12-14.

In fact, 30 f/cc is at the level reported in the so-called Shell sample, the hand-written data sheet describing a sample collected underneath a boiler while trying to simulate a "worst case situation." (Tr. 1630:6-12 (Longo); Tr. 605:7-19, 612:2-614:1 (Liukonen)). A power grinder was used to grind away a gasket without any prior effort to remove the gasket with a scraper. (Tr. 612:2-614:1 (Liukonen)). There is no evidence that any claimant tried to simulate a worst case situation. Accordingly, this opinion is not helpful in understanding the claimants' potential exposure from work with Garlock's products.

ii. Exposure to Other Asbestos Products

164. Garlock presented videos of testing conducted by Dr. Boelter which purported to show how removal of asbestos-containing insulation material was necessary prior to replacing a gasket.[514]

165. The Court declines to find that such procedures were historically accurate.

RESPONSE: Mr. Boelter was careful in the design of his pipefitter exposure assessment to ensure that historical work practices, materials, and tools were used in insulating the mock heat exchanger system and in the removal of the insulation to access the flanges for gasket replacement. He engaged an insulator and pipefitter who worked in the 1960s, when asbestos insulation was used, to do the work and supervise the helpers. (Tr. 656:23-657:2 (Boelter)). Captain Wasson described in his testimony that the work shown in the videos accurately represented what he saw onboard ships in the 1960s. (Tr. 175:17-176:4, 185:6-11

[514] Hr'g Tr. 659:1-661:19, July 24, 2013 (Boelter).

(Wasson); Wasson Demonstrative Slides at 6 (GST-16006)). Mr. Henshaw testified how the current claimants testified that they used hammers or wrenches to knock off the insulation to access the flange. (Tr. 858:12-859:20 (Henshaw)).

Even the Committee expert Mr. Shoemaker testified he had heard that historically hammers were used to remove insulation in his shipyards. When he was shown testimony by a former pipe coverer from Newport News Shipyard who had said that pipefitters used hammers and paint scrapers to rip out insulation, Mr. Shoemaker remarked, "I don't doubt he's exactly right. . . . I heard stories about it." (Tr. 1705:21-1707:4 (Shoemaker)).

In contrast, the Committee offered no evidence to rebut that the procedures used by Mr. Boelter in his pipefitter exposure assessment were typical of historical work practices.

166. Mr. Shoemaker testified that asbestos thermal insulation was replaced by fiberglass substitutions in the mid-1960s and asbestos-containing thermal insulation was phased out entirely in the 1970s.[515] He explained that insulation pads or "portable pads," ones that could be easily removed and reused, were typically used on equipment such as flange pumps and valves.[516] He also contended that pipefitters and machinists would not have used a hammer to remove pipe insulation because this could have damaged the various pipe components.[517]

RESPONSE: The Committee creates a misleading impression that the evidence showed an absence of asbestos insulation in the relevant periods by mischaracterizing Mr. Shoemaker's testimony. The overwhelming testimony was that asbestos insulation was widely used until it was banned in the 1970s and that even thereafter it was ubiquitous in the workplaces where

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[515] Hr'g Tr. 1679:12-1680:16, July 29, 2013 (Shoemaker).

[516] *Id.* at 1682:9-1684:1.

[517] *Id.* at 1684:2-25.

gaskets and packing were used. See e.g., Tr. 914:19-915:3 (Henshaw); Tr. 1717:5-1718:6 (Shoemaker). This is because the pipes had been insulated with asbestos insulation and it remained in place. Tr. 222:13-16 (Wasson).

Mr. Shoemaker did not say that fiberglass insulation replaced asbestos insulation in the mid-1960s. He stated only that fiberglass was approved for use in some applications then. He acknowledged that he did not know how much of it was ever used. Tr. 1717:5-1718:6 (Shoemaker). He testified that asbestos insulation and amosite felt were specified in the BuShips Technical Manual and installed through at least 1972 and probably a few years thereafter. Tr. 1717:8-21 (Shoemaker).

Additionally, the 1965 and 1966 editions of the BuShips Technical Manual's chapter on thermal insulation (the last two editions of the manual before the 1972 ban) continued to specify amosite pipecovering and amosite felt. BuShips Technical Manual Ch. 9390 (1 November 1965) (GST-15702); BuShips Technical Manual Ch. 9390 (15 January 1966) (GST-15701) at p. 2, ¶ 4 ("Thermal insulation pipe covering, Military Specification MIL-I-2781, grade II, class c, is a fibrous product usually formed from a uniform mixture of amosite asbestos fibers . . . . It can be used for temperatures up to 750°F."), ¶¶ 5-7 (describing variations of MIL-I-2781, which contained amosite); id. at p. 3 (specifying felt spec MIL-I-15091, which was made of amosite (see Mil Spec (and revisions) for Insulation Felt - Amosite Asbestos, dated 1 March 1937 through 3 July 1962 (GST-13150A)).

Mr. Shoemaker did speak of the use of portable pads on valves and fittings, but he acknowledged that hard insulation was also specified and described in the BuShips Technical Manual. Tr. 1695:18-1696:13 (Shoemaker). He also testified that his knowledge was limited to

new construction of mostly nuclear vessels. Tr. 1650:6-16, 1692:3-1693:2 (Shoemaker). He had very little experience with ships built before 1960. Tr. 1693:13-20 (Shoemaker).

Captain Wasson's experience on pre-1960 ships conventional ships was not so limited. He began his thirty-year Navy career in 1961 as a boilers officer on a World War II era ship, and throughout his career, he observed and supervised the maintenance and repair of essential boiler room and engine room equipment that required asbestos gaskets, packing, and insulation. Tr. 151:25-152:22, 171:10-172:5, 174:2-16 (Wasson). Based on his experience and his review of the BuShips Technical Manual, military specifications, and Military Standard 777 (GST-14780 through GST-14785), Captain Wasson testified that portable insulation pads were made of amosite felt and used on "systems that are above 389 degrees [Fahrenheit]." Tr. 196:14-24 (Wasson). Thus, Captain Wasson would expect to find hard insulation, not portable pads, on valves and fittings that specified compressed asbestos sheet gaskets because of the lower temperatures associated with those applications. Tr. 196:25-197:9 (Wasson).

The hard insulation would have to be knocked off to access the gasket underneath, as was depicted in the video of Mr. Boelter's Pipefitter Exposure Assessment. Tr. 176:5-16, 185:1-11 (Wasson). Captain Wasson also explained that because the fittings were packed with loose amosite or loose amosite insulation felt, and because the portable pads themselves were made of loose amosite asbestos felt, the removal of the portable pads was not a clean process. *See, e.g.*, Tr. 187:12-188:9 ("[T]his is packed with loose felt and the felt spec is the amosite felt"), 188:10-189:1 ("[T]o work on this guy, you got to knock that stuff all off. But the bad news, once you get it off, you got all this fluffy stuff to deal with too before you can ever get to your flange"), 191:1-6 (Wasson). *See* Witness Appendix, 1. Wasson at 3-6 (providing a more detailed discussion of the ways in which valves were insulated and of insulation removal).

In any event, when shown testimony by pipefitters and insulators that described the use of hammers to remove insulation, including in one of his own shipyards, Mr. Shoemaker agreed that he had heard that historically hammers were used to remove insulation and of the very dusty conditions created when the friable insulation was removed. Tr. 1705:21-1707:4 (Shoemaker). The Committee's proposed finding is inaccurate.

iii. Effects of Exposure to Asbestos from Garlock Products.

167. Whether the inhalation of asbestos dust generated from the fabrication and removal of Garlock gaskets is sufficient to cause or contribute to the development of mesothelioma is a medical question.

RESPONSE: Actually, it is a mixed question of law and fact that requires the testimony of medical witnesses. The standards for causation and the standards governing the scientific reliability of evidence are all implicated.

168. If the Court were to decide the question of whether exposure to asbestos from the Garlock's asbestos-containing products can cause or contribute to mesothelioma, it would conclude that it does.

RESPONSE: There is no scientifically reliable evidence to support this finding. (*See* Garlock's Motions to Strike Medical and Industrial Hygiene Evidence and brief in support). Moreover, the reliable testimony is to the contrary. Garlock's products were historically considered safe and all subsequent reliable testing has confirmed that fact.

169. The Committee's medical experts persuasively rebutted the opinions of Garlock's medical experts that exposure to chrysotile asbestos dust and fibers from the use of Garlock gaskets and packing was incapable of causing mesothelioma. Well supported by a voluminous body of scientific literature, the Committee's medical experts testified

that: 1) chrysotile asbestos causes mesothelioma;[518] 2) there is no safe level of exposure to any type of asbestos, including chrysotile;[519] 3) exposures to asbestos as brief as a few days can cause mesothelioma;[520] 4) mesothelioma is caused by the cumulative amount of asbestos exposure, and that the more a person is exposed the greater the risk;[521] and 5) asbestos exposures from fabricating and removing asbestos gaskets can result in concentrations of asbestos that are well in excess of what is found in background ambient air.[522]

RESPONSE: There is no scientifically reliable evidence to support this finding. (*See* Garlock's Motions to Strike Medical and Industrial Hygiene Evidence and brief in support).

Moreover, the reliable testimony is contrary to this proposed finding. Committee expert Dr. Brody conceded that currently the "consensus of the medical community [is] that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:18 (Brody) (admitting that in his deposition he agreed that was the consensus)); Motion, Appendix C, Brody Dep. at 149:12-150:4; Motion, Appendix D, Sporn Rebuttal References, Churg (2005)).

The Committee's "no safe level" theory, as Dr. Anderson explained and case law holds, is a precautionary risk analysis assumption in the "zone of inference," not a scientific method of determining causation. (As Dr. Anderson explained, "no safe level" assumptions are appropriate

[518] Hr'g Tr. 1989:14-1990:1, July 30, 2013 (Brodkin); Hr'g Tr. 2111:8-12, 2128:2-18, July 31, 2013 (Welch).

[519] Hr'g Tr. 1948:25-1949:21, July 30, 2013 (Brodkin); Hr'g Tr. 2128:19-2129:6, July 31, 2013 (Welch).

[520] Hr' g Tr. 2122:2-2123:25, July 31, 2013 (Welch).

[521] Hr'g Tr. 1948:6-24, 2004:9-19, July 30, 2013 (Brodkin); Hr'g Tr. 2148:4-2152:11, July 31, 2013 (Welch).

[522] Hr'g Tr. 1748:4-1753:13, July 30, 2013 (Templin).

in the public health risk assessment context, but not for causation determinations such as must be made by courts. (Tr. 4384:7-4386:15, 4389:5-4390:10 (Anderson); Anderson Demonstrative Slides at 16 (GST-16008)). In *Wannall v. Honeywell Int'l, Inc.*, 2013 U.S. Dist. LEXIS 68523 (D.D.C. May 14, 2013) (rejecting assertion that an expert can base his opinion on the theory that "any exposure above what is in the background air" may be considered a cause of mesothelioma), the court explained "'no safe level' addresses *risk*, not *cause*, and there is a significant distinction between those two concepts." Case-controlled or cohorts studies, not merely an allegation of episodic exposure above background, are necessary to determine causation. The Committee presents none.

170. Dr. Brodkin explained how the medical evidence established a causal relationship between the use of gaskets and packing and the development of mesothelioma through the use of the Bradford Hill causation criteria, first with regard to chrysotile and then specifically with regard to the fabrication and removal of asbestos gaskets.[523] He concluded that chrysotile asbestos in gaskets and packing is a potent risk factor for mesothelioma.[524]

RESPONSE: Dr. Brodkin's methodology boils down to the assertion that virtually any gasket exposure—even a mere ten minutes—could suffice as a substantial cause of mesothelioma. (Tr. 2007:10-19 (Brodkin)). (His language at trial was that each "well-documented exposure" could be a "component part" of cumulative exposure. And because, he cannot "tease out" the significance of any given exposure, all must be considered substantial causes. This was also made clear in the Rule 104 record. (Motion, Appendix C, Brodkin Dep. at

[523] Hr'g Tr. 1951:5-1954:9, 1957:17-1958:1, 1961:1-21, 1967:7-1968:25, 1970:1-23, 1970:24-1971:22, 1973:1-16, 1979:7-1984:6, July 30, 2013 (Brodkin).

[524] *Id.* at Tr. 1989:14-1990:1.

107:15-108:8). As he admitted, "I don't have a way of teasing [the importance of a minimal exposure] out from the other aspects of the aggregate exposure." (Tr. 2006:12-23 (Brodkin)).

Dr. Brodkin presented no case-control or cohort studies of exposure to low-dose chrysotile products causing a statistically significant increased risk of mesothelioma. The claim that he employed a valid Bradford Hill analysis is erroneous. (*See* Debtors Motion to Strike Medical Expert Testimony). First, his testimony did not focus solely on gaskets and packing, but rather relied primarily on analysis of high exposure chrysotile populations. Secondly, Dr. Brodkin conceded what case law holds: that a series of such studies were required before employing the Bradford Hill criteria, one of the methods he claimed to rely upon. (Tr. 2026:14-2027:4 (Brodkin)). *Frischhertz v. SmithKline Beecham Corp.*, 2012 U.S. Dist. LEXIS 181507, 9-10 (E.D. La. Dec. 21, 2012). The Bradford Hill criteria can only be applied after a statistically significant association has been identified. Federal Judicial Center, Reference Manual on Scientific Evidence, 599, n.141 (3d. ed. 2011) ("In a number of cases, experts attempted to use these guidelines to support the existence of causation in the absence of any epidemiologic studies finding an association . . . . There may be some logic to that effort, but it does not reflect accepted epidemiologic methodology."). *See, e.g., Dunn v. Sandoz Pharms.*, 275 F. Supp. 2d 672, 678 (M.D.N.C. 2003). Nevertheless, he purported to rely on Bradford Hill methodology, following the views of a litigation affidavit by Dr. Lemen that was turned into an article published in an advocacy journal. (Motion, Appendix B, Weed Report at 45). As the trial testimony established, the International Journal of Occupational and Environmental Health is where several of the articles relied upon by Committee medical experts appear. It was edited by well-known plaintiffs' experts including David Egilman (Tr. 2166:22-2167:5 (Welch)) whose opinions have been excluded for manipulating data. (Motion, Appendix B, Weill report at 54, n.

34). Dr. Lemen's analysis, which Dr. Brodkin follows, is fatally flawed. (Motion, Appendix B, Weed Rebuttal Report at 17-18; Motion, Appendix B, Weed Report, Sections C-G). Dr. Brodkin admitted in his deposition that the Lemen article was not an objective review of the evidence on both sides of the question of chrysotile causation; rather, it was a "commentary" that should not be cited as a comprehensive objective review. (Motion, Appendix C, Brodkin Dep. at 159:9-160:7; *see* also Motion, Appendix B, Weed Rebuttal Report at 17).

The many other reasons Dr. Brodkin's testimony fails to pass muster under *Daubert* and the helpfulness standard for the federal rules are addressed in detail in the briefing in support of Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions filed on 7/3/13.

171. Next, Dr. Brodkin explained the methodologies he used in determining that exposure to chrysotile asbestos dust from gaskets and packing causes mesothelioma.[525] These included three complementary methodologies: (1) taking a comprehensive occupational and environmental history; (2) applying the Helsinki Consensus criteria on attribution; and (3) evaluating the Bradford-Hill causation criteria.[526]

RESPONSE: Dr. Brodkin did not properly apply Bradford Hill as explained in response to the preceding proposed finding. Dr. Anderson's testimony explained that the Helsinki paper is a public health document (a point even Committee expert Dr. Brodkin concedes) and employed a different level of proof than pertains to tort liability. Attribution criteria in a public health document cannot form the basis of liability. Taking an occupational history is not a method for determining causation. (Exhibit 1 to Debtors' Reply To Committee's Response And Opposition To Debtors' Motion To Exclude Or Strike Committee Medical Expert Witness Opinions (D.E.

[525] *Id*. at 1935:4-9.

[526] *Id*. at 1935:10-1936:2.

3204). Dr. Brodkin apparently asserts that he is using the same analytic approach he would use in making decisions as an occupational physician. (Dr. Welch explained that case reports suffice for her own opinions, based on her perspective as an occupational and preventive medicine physician. (Tr. 2186:9-15 (Welch)). Dr. Brodkin testified to using occupational medicine methodology: "There are three major methods that I use in my practice and that physicians in Occupational and Environmental Medicine would typically use in addressing the question of causation . . . ." (Tr. 1935:13-16 (Brodkin)). The Federal Judicial Center Reference Manual on Scientific Evidence cautions against accepting causality assessments based on clinical decision-making.

> Although physicians use epidemiological studies in their decision making, "they are accustomed to using *any* reliable data to assess causality, no matter what their source" because they must make care decisions even in the face of uncertainty. This is in contrast to the courts which require a higher standard than clinicians or regulators, and wherein causation cannot just be "possible" but where "a 'preponderance of evidence' establishes that an injury was caused by an alleged exposure." Reference Manual on Scientific Evidence, 3d ed. (2011) at 714.

The caution not to use treatment decision strategies applies even more strongly when Occupational and Preventive Medicine is the specialty of the expert. As was established at trial, and admitted by Dr. Brodkin, preventive medicine errs on the side of overprotection. (Tr. 2016:23-2017:10 (Brodkin)). A physician in that specialty starts with a bias built-in from their training to employ protective assumptions that are different than the legal requirements to establish tort causation.

The many other reasons Dr. Brodkin's testimony fails to pass muster under *Daubert* and the helpfulness standard for the federal rules are addressed in detail in the briefing in support of Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions filed on 7/3/13.

172. With regard to an individual's occupational history, the information for those who have worked with gaskets and packing is that any exposures that were generated from the disturbance of asbestos fibers like scraping, cutting, wire brushing, and power wire brushing, which can result in very significant airborne asbestos fiber levels.[527] According to Dr. Brodkin, for those individuals who have a defined occupational exposure to an activity generating airborne asbestos fibers, the Helsinki Consensus criteria would allow a physician to make a determination of causation, as long as that activity occurred more than ten years prior to the diagnosis of mesothelioma.[528]

RESPONSE: Dr. Brodkin agreed it would not be scientifically valid to make conclusions about the levels of exposure from typical workplace activities with gaskets based primarily on worst case scenario data. (Tr. 2015:3-10 (Brodkin)). Yet the sources he relied upon for his claimed understanding of the fiber release from gaskets, such as the data sheets from Newport News and Shell, were precisely that kind of information. (Motion, Appendix A, Brodkin Report at 17 citing Shell and Newport News documents). Moreover, without evidence of frequency, duration and concentration Dr. Anderson's testimony explained that the Helsinki paper is a public health document (a point even Committee expert Dr. Brodkin concedes) and employed a different level of proof than pertains to tort liability. Attribution criteria in a public health document, the Helsinki paper, cannot form the basis of liability.

173. Dr. Brodkin also discussed the evidence that supported his conclusion that the application of the Bradford-Hill causation criteria demonstrated a causal relationship between exposure to chrysotile and mesothelioma.[529] This included (1) the numerous

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[527] *Id.* at 1940:12-1941:14.

[528] *Id.* at 1950:7-1951:4.

[529] *Id.* at 1951:5-1952:23.

studies that have shown a consistent increased risk of mesothelioma in cohorts exposed to predominately chrysotile fibers;[530] (2) the fact that the disease of mesothelioma does not occur until years after the exposure to chrysotile asbestos fulfills the temporality requirement;[531] (3) the many studies of chrysotile exposure that show increasing incidence of mesothelioma at greater doses like those of Rogers and Lee and Madkour in Egypt which meets the dose-response consideration;[532] (4) Dr. Brody's testimony, which addressed the considerations of biological plausibility and animal study support;[533] (5) the fact that mesothelioma is a signal tumor caused almost exclusively by exposure to asbestos satisfies the specificity consideration;[534] and (6) the fact that all types of asbestos are responsible for causing pleural plaques, non-cancerous scarring of the pleura, and lung cancer, without any potency difference, fulfills the considerations of coherence and analogy.[535]

RESPONSE: The claim that Dr. Brodkin employed a valid Bradford Hill analysis is erroneous as demonstrated in the Rule 104 record and discussed in detail in Debtors Motion to Strike Medical Expert Testimony and discussion above. Dr. Brodkin does not have a series of case-controlled or cohort studies demonstrating as consistently increased risk of mesothelioma. He cites mining and textile studies that are confounded by amphibole exposures.

The claim that Madkour is a chrysotile study relies upon a brief reference to current production and ignores the reality that asbestos factories in this neighborhood historically also

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[530] *Id.* at 1952:24-1954:9, 1957:17-1958:1.

[531] *Id.* at 1960:9-25.

[532] *Id.* at 1961:1-21, 1967:7-1968:25.

[533] *Id.* at 1970:1-23.

[534] *Id.* at 1970:24-1971:22.

[535] *Id.* at 1973:1-16.

used crocidolite and amosite. (The Committee refers to Madkour's statement: "The Sigwart plant is an asbestos manufacturing plant using chrysotile asbestos." *Id.* at 27. Yet, the fact of amphibole use is documented in the medical literature. Debtors' Motion to Strike Medical Experts, Appendix D, Weill Report References, 78. Gaafar, 2007 P1-118; Trial Tr. 2036:22-2039:1 (Brodkin)). In Rogers the authors conclude: "It is difficult to assess the risks associated with chrysotile alone, due to the almost universal mixed exposure to amphibole and chrysotile." (Rogers 1991, at 1920). Rogers later commented that the chrysotile causation association in the 1991 article lacked biologic plausibility. (Rogers 1994, at 638.) Rogers emphasized his data cannot be used to identify a significant risk from chrysotile. (Rogers 1994, at 637). *See* Weill Report at 57.

174. Applying these same considerations to gasket and packing exposures, Dr. Brodkin noted studies documenting cases of mesothelioma in workers who were engaged in gasket manufacturing.[536] Such studies included an evaluation of the MacNeal-Chicago registry which discovered cases of mesothelioma not only among plant workers but in individuals who lived in close proximity to the manufacturing plant. Another study of a chrysotile packing plant revealed 17 cases of mesothelioma among its 3,000 employees, a high percentage for a disease that occurs at a rate of one in a million in the general population.[537]

RESPONSE: The Committee's and Dr. Brodkin's reference to an old 1987 case series related to two manufacturing plants is misleading in several respects. First, the gasket reference in the study has nothing to do with compressed asbestos sheet gaskets at issue here. The states that "gasket [was a] specialized appliance of metal covered with asbestos, and asbestos

[536] *Id.* at 1979:7-12.

[537] *Id.* at 1979:13-1980:15.

millboard." Moreover, the authors wrote that "raw asbestos was shipped into this region from both Canada and South Africa, the latter a major source of crocidolite asbestos. The residential and working populations might have actually been exposed to a mixture of these fibers." (Wolf 1987, at 2148). *See* Weill Report at 56. Similarly, as noted in the Rule 104 record by Dr. Garabrant, the NIOSH study (Robinson *et al.* 1970) "is a study of asbestos products manufacturing workers exposed to chrysotile, crocidolite, and amosite. It provides no results on mesothelioma risks from end users of gaskets or packing, or from only chrysotile exposure. It is inappropriate to imply that this study provides information on mesothelioma risks from end uses of chrysotile gaskets or packing of chrysotile packing plant." Garabrant Rebuttal Report 10-11. Nothing about these studies deal with an increased risk from end use of Garlock's products.

175. Dr. Brodkin testified that further evidence of the connection between asbestos gasket and packing use and mesothelioma is found in the epidemiologic studies performed with the various trades that utilized these products including pipefitters, plumbers, boilermakers, machinists and mechanic repairmen.[538] Dr. Brodkin testified that numerous studies of these trades consistently demonstrated a significantly elevated risk of contracting mesothelioma.[539]

RESPONSE: As Dr. Garabrant explained, the increased risk of mesothelioma arises from the exposure to friable, amphibole containing insulation products, not gaskets and packing. This becomes clear through the many studies failing to find increased risk among vehicle mechanics, who use gaskets and asbestos brakes, but not insulation products. (Tr. 242:19-245:1, 294:2-297:4, 245:2-11, 293:16-297:4, 295:4-297:4, 297:20-299:5 (Garabrant); (GST-15786) Fig. 4.

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[538] *Id.* at 1980:16-1981:19.

[539] *Id.* at 1981:20-1984:6.

176. In evaluating the levels of exposure to gaskets and packing, Dr. Brodkin recognized that degraded gaskets can become friable and a source of airborne fibers and, thus, exposure.[540] Since the medical literature uniformly reports the lack of a known threshold of exposure below which mesothelioma does not occur, Dr. Brodkin emphasized the need to reduce or prevent exposure to lower the risk of disease.[541] He noted that the governmental permissible exposure limits were designed as a practical lower limit of feasibility for measuring asbestos levels, not a measure to prevent the occurrence of mesothelioma.[542]

RESPONSE: This testimony is not the basis for liability. As explained above, Dr. Brodkin's understanding about gaskets is based on unreliable worst case scenario assumptions. His testimony about public health standards and findings misapplies risk analysis, as explained by Dr. Anderson. No known safe level is not a foundation for tort liability, as addressed in Debtors Reply to Committee's Response and Oppositions to Debtors Motion to Exclude or Strike Committee Medical Expert Witness Opinions.

177. Dr. Welch testified that more than a dozen epidemiology studies conducted all over the world show an increased risk of mesothelioma in cohorts of people exposed to chrysotile asbestos.[543] Among the cohorts of chrysotile exposed workers she discussed were a series of papers relating to textile workers in China with an increased risk of mesothelioma thirty-three (33) times greater than that of the non-exposed population;[544]

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[540] *Id.* at 1984:20-1985:4.

[541] *Id.* at 1985:5-1986:3.

[542] *Id.* at 1986:4-1987:12.

[543] Hr'g Tr. 2113:6-2114:18, 2117:4-9, July 31, 2013 (Welch).

[544] *Id.* at 2117:10-2118:2.

miners, millers and other workers at a large open air chrysotile mine in Balangero, Italy who had a statistically significant excess incidence of mesothelioma not attributable to other mineral contaminants;[545] and a group of workers in a North Carolina textile mill where eight mesothelioma cases occurred in an environment where only two air samples out of 38,000 demonstrated the presence of a commercial amphibole fiber.[546]

RESPONSE: As established in the Rule 104 record, Dr. Welch does not have a scientifically reliable foundation for her opinions. (*See* Debtors Reply to Committee's Response and Oppositions to Debtors Motion to Exclude or Strike Committee Medical Expert Witness Opinions).

Studies from the Balangero region of Italy involve exposures of hundreds of fiber years occurring in a mining locale where scientists have written that both tremolite and the "asbestiform mineral" Balangeroite are potential mesothelioma-causing agents. (*See* Debtors' Brief on Medical Experts at 50-51). The several Chinese studies by Yano and others all relate to the same two mesothelioma cases in a textile manufacturing plant as identified on a demonstrative slide Dr. Welch displayed at trial (Welch Demonstrative Slides at 28 (ACC 3005)); one has a suspiciously short latency and the other is peritoneal mesothelioma, a type of mesothelioma that is not associated with chrysotile exposure according to publications authored by Committee expert Dr. Brodkin. (Tr. 2117:10-2118:2 (Welch); Tr. 2058:15-2059:2 (Brodkin)). Moreover, tremolite is the probable cause of the Yano cases, as demonstrated by a fiber burden study. (Weill Expert Report (GST-15183) at 60-61 (discussing Yano 2009)). Similarly, the Committee cites to the study of a North Carolina textile plant by Dr. Welch's business partner, Dr. Dement. The claim that the plant used only chrysotile turns out to be based

[545] *Id.* at 2118:3-18.

[546] *Id.* at 2118:19-2121:11.

on a lack of review of available records that debunk that claim. (The Committee's brief misleadingly cites to air monitoring at the plant. Most of the documents related to amphibole products are from an early period when UNARCO, an amphibole product seller, operated the plant. Dr. Dement conceded that no air monitoring exists from that period. (Tr. 2172:18-2173:10 (Welch)). (*See* Motion, Appendix C, Dement Dep. at 32:8-11)). Additionally, a fiber burden study from the plant demonstrates commercial amphiboles in a worker from the plant who developed mesothelioma. (Tr. 439:18-440:22 (Sporn)).

178. With regard to fiber potency, Dr. Welch testified that many of the studies used to calculate potency differences are out of date and contain more mesothelioma cases in the chrysotile exposed cohorts than when they were studied in the late 1990s,[547] and that in 2008, a Science Advisory Board convened by the Environmental Protection Agency to quantify the differences in fiber types determined that the historical data was not sufficient to conclude that chrysotile asbestos was less potent than amphibole asbestos.[548]

RESPONSE: This finding by one political body engaged in public health regulation is not scientifically or legally relevant to this proceeding in which even Committee expert Dr. Brody testified that chrysotile is 500 times less potent on a fiber-per-fiber basis than amphiboles. (Tr. 1906:3-7 (Brody)). Committee medical expert Dr. Welch, herself, cited to a public health risk assessment from Holland that regulated health on the basis that amphiboles are 50 times more potent and conceded amphiboles are ten times more potent than chrysotile. (Tr. 2187:23-88:25 (Welch)).

179. Dr. Welch also testified that, based upon both analytical epidemiology studies and mesothelioma case series such as the Skammertiz study and the Greenberg

[547] *Id.* at 2145:4-2146:5.

[548] *Id.* at 2093:3-2094:7, 2095:7-2096:4.

Davies study, it has been demonstrated that asbestos exposures as brief as a few days cause mesothelioma in humans.[549] With respect to chrysotile specifically, she explained how the Madkour, Pan and Everatt studies demonstrate that very low levels of chrysotile exposure (such as living a mile away from a chrysotile plant or a cumulative exposure of 0.01 fiber per cubic centimeter) cause mesothelioma.[550]

RESPONSE: It is misleading to suggest that Madkour 2009 demonstrates that low levels of chrysotile exposure cause mesothelioma. The study did indeed report low current asbestos measurements in the range of 0.01 fibers per cc near an Egyptian cement plant. (Committee Post-Hearing Brief at 76-77). The Committee fails to report, however, that those were levels measured in 2003 and 2004, after "improvements in the technology of asbestos manufacturing." (*See* Motion, Appendix D, Weill Report References, 124. Madkour, et al, 2009 at 29, 34.) For historical perspective, the Madkour authors cited an earlier study reporting extremely high fiber concentrations in the neighborhood of between 3.0 to 20.0 fibers per cc (*Id*. at 33.)—the pollution one would expect from manufacturing in a third world county. Moreover, the Committee's erroneous claim that Madkour is a chrysotile study relies upon a brief reference to current production and ignores the reality that asbestos factories in this neighborhood historically also used crocidolite and amosite. (The Committee refers to Madkour's statement: "The Sigwart plant is an asbestos manufacturing plant using chrysotile asbestos." *Id.* at 27. Yet, the fact of amphibole use is documented in the medical literature. *See* Motion, Appendix D, Weill Report References, 78. Gaafar, 2007 P1-118; Tr. 2036:22-2039:1 (Brodkin)). Similarly, the Committee incorrectly claims Pan 2005 proves low-dose chrysotile causation. The authors of

[549] *Id*. at 2123:10-25.

[550] *Id*. at 2124:4-2126:17.

that study noted the study's many limitations and called for further research to test their theory. (Motion, Appendix D, Welch Report References, Pan (2005)). The Pan study was based on residence at date of diagnosis, which is largely irrelevant due to long latency between exposure and mesothelioma diagnosis. In addition, the authors report "incomplete occupational history on individual cases and control subjects," "the lack of a reliable and acceptable job-exposure matrix for asbestos to characterize the potential of individual occupational exposure," and "lack of complete lifetime residential history on individual cases and controls." Finally, the authors explain that their results are not even "asbestos-specific" but based on "ultramafic rock-specific GIS map" for sources of asbestos in California. (Pan 2005 at 1023-24). Even Committee expert Dr. Brodkin has written that Pan 2005 cannot be used to determine chrysotile causation. (In a letter to the editor, Dr. Brodkin described Pan 2005 as employing an "innovative method," and explained "two important limitations to the study design that bear comment, as they do not allow determination of a causal association between sources of naturally occurring asbestos (NOA) and mesothelioma." (*See* Motion, Appendix D, Weill Report References, 31; Brodkin (2006) at 573. *See, e.g.*, Weill Expert Report (GST-15183) at 57). In his deposition in this case, Dr. Brodkin explained the data also showed a significant association with occupational activity and that there was no way to distinguish the actual case. Motion, Appendix C, Brodkin Dep. at 230:4-21).

Greenberg 1974, Skammeritz 2011, and Everatt 2007 are case reports. As Dr. Garabrant explained, case reports raise hypotheses, they do not establish causation. (Tr. 271:5-272:8 (Garabrant)). Case reports cannot be the basis for causation determinations. (*Dellinger v. Pfizer, Inc.*, 2006 U.S. Dist. LEXIS 96355, 29-31 (W.D.N.C. July 19, 2006). *See also Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 885 (10th Cir. 2005) ("[reliance on cases series] is misplaced and demonstrates the unreliable nature of the testimony."); *Nelson v. Matrixx Initiatives, Inc.*,

2012 U.S. Dist. LEXIS 144102, 8-9 (N.D. Cal. Oct. 4, 2012) ("Dr. Davidson's case series, one of the Davidson studies Dr. Hwang relied on, is not admissible evidence of causation . . . .")).

In any event, none of the case reports cited in this proposed finding has anything to do with low-dose exposure to gaskets or even to exclusively chrysotile products. Greenburg is an article about the British Mesothelioma Register that reports a single case of a person who sawed asbestos cement. The only information on that case's exposure which Dr. Welch relies upon for her benchmark is "1 day" of "sawing up asbestos cement sheets to construct two sheds." (Tr. 2185:9-19 (Welch)). Dr. Welch admitted that the cement sheet in question probably contained amphiboles. (Tr. 2185:9-14 (Welch). *See* Motion, Appendix D, Weill Rebuttal References, Greenberg (1974)). Skammeritz 2011 contains even less information about the case in question. This is a report on 122 cases at a Denmark clinic, which appeared in a journal apparently once published by the National Iranian Oil Company Health Organization. Internet research fails to find evidence that it is a journal that is currently published. The authors specifically state that the study "is small and based on retrospectively collected information of clinical data not designed for scientific purposes." (Skammeritz 2011 at 234 (emphasis added)). The basis of the Committee's citation to it is that the data on exposure showed a range "from a few days to over 40 years." (*Id.* at 228-29). The Committee cites this data even though the authors admit it was not collected for scientific purposes, and it discloses nothing about the nature of the exposure. (*See* Motion, Appendix D, Garabrant Rebuttal References, 105. Skammeritz (2011) (hereafter, "Skammeritz 2011")). Similarly, in Everatt 2007 the authors made no claim that this case report detected a statistically significant increased rate of mesothelioma, which (it is important to remember) occurs in the absence of asbestos exposure. (The rate of spontaneous or idiopathic mesothelioma can be as high as 20-40% in men and 50% in women. (Tr. 309:14-21

(Garabrant)). Dr. Welch described this as a case series (Tr. 2125:18-22 (Welch)). But both she and the Committee brief focused on only one case with occupational exposure to chrysotile. An issue arises because the diagnosis was based on cytology. Diagnosis by cytology is "fraught with hazards." (Weill Expert Report (GST-15183) at 55 (citing Roggli 2004)). In fact, "[t]he person with occupational chrysotile exposure had fewer chrysotile fibers in his lung than both non-occupationally exposed subjects and occupationally exposed workers." (Weill Expert Report (GST-15183) at 55 (citing Everatt 2007 at 461, Table V)). *See* Motion, Appendix D, Weill Report References, 73; Everatt (2007) Occupational Asbestos Exposure Among Respiratory Cancer Patients in Lithuania (hereafter, "Everatt 2007")).

180. The literature supporting the view that chrysotile asbestos causes mesothelioma is extensive, and every scientific organization that has studied the issue has concluded that there is a causal relationship between chrysotile asbestos and mesothelioma.[551]

RESPONSE: This proposed finding relates to statements by public health agencies. As Dr. Anderson explained, public health agencies employ risk analysis based on precautionary principles. *Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst*., 448 U.S. 607, 656 (1980) (OSHA "is free to use conservative assumptions in interpreting the data with respect to carcinogens, risking error on the side of overprotection rather than underprotection."). Case law explains these materials are not the basis of liability because, like case reports, they do not "test a causal hypothesis and therefore cannot support a causation opinion." *Dellinger v. Pfizer, Inc.*, 2006 U.S. Dist. LEXIS 96355, 29-31 (W.D.N.C. July 19, 2006) (citing *Glastetter v. Novartis Pharm. Corp*., 252 F.3d 986, 989-90 (8th Cir. 2001) and other cases); *see also Rider v. Sandoz*

[551] Hr'g Tr. 1948:10-24, 1973:17-1975:21, July 30, 2013 (Brodkin); Hr'g Tr. 2111:8-2113:6, July 31, 2013 (Welch).

Pharm. Corp., 295 F.3d 1194, 1201 (11th Cir 2002) (regulatory agency "analysis involves a much lower standard than that which is demanded by a court of law. A regulatory agency such as the FDA may choose to err on the side of caution. Courts, however, are required by the *Daubert* trilogy to engage in objective review of evidence to determine whether it has sufficient scientific basis to be considered reliable.").

181. Dr. Brody confirmed that all asbestos fibers types, including chrysotile, have been shown to cause mesothelioma as well as all other asbestos-related disease in humans.[552] Dr. Brody testified that inhaled asbestos fibers have the ability to damage the genetic composition of cells.[553] Wherever asbestos fibers travel in the human body, they are capable of causing injuries at the cellular level.[554] With respect to cancer, however, the greater concern occurs when asbestos fibers change the genetic material within a cell that survives and then passes on these asbestos-induced genetic errors through cellular division. Over the course of many years, this genetic damage is compounded and magnified due to additional damage to future generations of the damaged cell. Cancer develops decades later, when a single cell creating genetic errors in combination for that person results in a tumor.[555] Based on his published studies, Dr. Brody opined that chrysotile asbestos is cytotoxic to human and animal macrophages and kills cells that function as a key component of the body's natural defense mechanism.[556]

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[552] Hr'g Tr. 1858:13-22, 1860:1-18, July 30, 2013 (Brody).

[553] *Id.* at 1838:5-15, 1847-1857.

[554] *Id.* at 1853:24-1854:9.

[555] *Id.* at 1852:2-1857:25.

[556] *Id.* at 1858:23-1860:4.

RESPONSE: The Committee presents an incomplete finding with respect to Dr. Brody. Dr. Brody testified that the "consensus of the medical community [is] that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:5 (Brody) (admitting that in his deposition he agreed that was the consensus) (Motion, Appendix C, Brody Dep. at 149:12-150:4; Motion, Appendix D, Sporn Rebuttal References, Churg (2005)). The consensus that chrysotile-induced mesothelioma only occurs with very high exposure was published in a textbook authored by "very famous" scientists, including physicians at the Mayo Clinic. (Tr. 1902:8-11 (Brody)).

Dr. Brody's opinions on laboratory studies are contrary to the interpretation placed upon them by his two teachers and mentors, Dr. Wagner and Dr. Craighead, both of whom are famous and respected researchers in this field, who believe that chrysotile fibers do not cause mesothelioma. (Tr. 1898:11-1901:2 (Brody)). Additionally, Dr. Brody confirmed the testimony of Debtors' experts about the need for controlled epidemiology rather than hypothesis-generating case reports, animal studies, and biological mechanism studies. (Motion, Appendix C, Brody Dep. at 100:3-101:6). Although, Dr. Brody can demonstrate cytotoxic effects from chrysotile in laboratory experiments, he admitted that knowledge about mesothelioma causation is limited to the point that we do not yet know whether we are dealing with one type of tumor or with several types of tumors. (Tr. 1891:6-20 (Brody)). Science does not yet know the precise genetic errors that have to occur in order to cause mesothelioma. (Tr. 1884:15-21 (Brody)). The mutagenic effect of asbestos at low doses is still unknown. (Tr. 1885:1-1886:6 (Brody)). Thus the genetic effects he can produce in the laboratory cannot prove causation in the real-world use of chrysotile products. Rather, Dr. Brody admitted that epidemiology is the "acid test" for determining causation. (Tr. 1894:17-20 (Brody)).

Dr. Brody has testified that amphibole fibers are 500 times more potent than chrysotile. (Tr. 1906:3-5 (Brody)). He explained this difference in fiber potency: "On a fiber-per-fiber basis what that means is you may need 500 chrysotiles for every amphibole." (Tr. 1906:6-8 (Brody)).

182. To support the low dose chrysotile defense, Garlock offered the testimony of three medical experts, Drs. David Garabrant, Thomas Sporn and David Weill, none of whom has a specialty in occupational medicine. Moreover, neither Dr. Sporn nor Dr. Weill has ever designed or published an original epidemiology study relating to asbestos exposed workers.[557]

RESPONSE: The first part of this statement is false. Debtors' expert David Garabrant, M.D. holds board certification in Occupational Medicine (in addition to his board certification in Internal Medicine and Preventive Medicine) and is a fellow of the American College of Preventive Medicine and the American College of Occupational and Environmental Medicine. (Tr. 236:5-11 (Garabrant)). He has served on the editorial board of the Journal of Occupational Medicine and on the Board of Directors of both the Michigan Occupational Medical Association, and the Western Occupational Medical Association. Garabrant CV (GST-15156A).

Dr. Garabrant "was recruited to the University of Michigan in 1988 to head the occupational medicine program;" he later became the Director of the University's Center for Occupational Health and Safety Engineering and ran the occupational and environmental epidemiology program. (Tr. 238:4-18 (Garabrant)). For more than 20 years from 1989-2011, he served as an attending physician in the Occupational Medicine Outpatient Clinic at the University of Michigan Medical Center. Garabrant CV (GST-15156A). As he explained at trial, throughout his career Dr. Garabrant treated patients in his occupational medicine practice, and he

[557] **Hr'g Tr. 443:15-17, July 23, 2013 (Sporn), Hr'g Tr. 1016:15-19, July 25, 2013 (Weill).**

routinely testified on behalf of patients seeking compensation. (Tr. 241:7-19 (Garabrant)). The Committee's claim that none of the experts presented by Debtors has a specialty in occupational medicine is thus completely counterfactual.

Criticism of Dr. Weill and Dr. Sporn's publication history is also misleading. In fact, Dr. Weill has authored a leading reference for occupational physicians like Dr. Brodkin and Dr. Welch. He wrote the chapter on asbestos disease for *Hunter's Disease of Occupations,* 2011. (Tr. 963:6-9 (Weill)). Dr. Weill's qualifications to inform occupational physicians on the nuances of pulmonary diseases like mesothelioma results from years of study and an active clinical practice that includes patient contact almost every day. (Tr. 961:15-25 (Weill)). As a specialist in the field, Dr. Weill has personally treated mesothelioma patients. His writings also include a chapter in the text titled *Asbestos and Its Diseases,* recently published by the Oxford University Press. (Tr. 963:1-5, 10-12 (Weill)).

Dr. Sporn is one of the foremost pathologists currently publishing in this area. (Tr. 411:20-412:4 (Sporn)). The second edition of Dr. Sporn's textbook *Pathology of Asbestos Associated Diseases* contained detailed discussion of causation of all asbestos-associated diseases. (Tr. 412:5-11 (Sporn)). Dr. Sporn authored three chapters of this textbook, including the chapter entitled "Mesothelioma." (Tr. 412:13-15 (Sporn)). The third edition of this widely respected text is in press. (Tr. 412:16-21 (Sporn)). The core of Dr. Sporn's opinions relate to what lung fiber burden analyses demonstrate about mesothelioma causation. This is a subject upon which he has been published in the peer-reviewed literature. (Tr. 411:20-412:4 (Sporn)). In fact, the graphic that he displayed to the court came directly from his article entitled "Malignant mesothelioma and occupational exposure to asbestos: a clinicopathological correlation of 1445 cases." (Tr. 429:9-23 (Sporn)). Dr. Sporn also testified about the

mineralogy of asbestos, a subject upon which he authored a chapter in the 2011 text *Malignant Mesothelioma*. (Tr. 412:22-413:5 (Sporn)).

183. Their opinion that chrysotile asbestos is totally innocuous and incapable of causing any disease including asbestosis, pleural plaques and mesothelioma is contradicted by peer-reviewed published literature,[558] and by Garlock's own Material Safety Data Sheet, which alerted workers that the chronic breathing of chrysotile asbestos from Garlock's gaskets could cause lung disorders such as asbestosis, pleural plaques, lung cancer and mesothelioma.[559]

RESPONSE: The key chrysotile opinion of Committee experts is that potential exposures to chrysotile fibers from gaskets does not cause mesothelioma. Their opinion is consistent with the admission of Dr. Brody that the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:5 (Brody)).

Garlock's Material Safety Data Sheets from the 1980 do not establish the current science on causation. Rather, Federal law required companies to produce an MSDS listing risks public health agencies have determined may exist with respect to the product's ingredients. The Federal Hazard Communication Standard sets out the MSDS requirements. 29 CFR § 1910.1200(h)(1) (2006). Courts reject attempts to base liability on a company's MSDS. *Schelske v. Creative Nail Design, Inc.*, 280 Mont. 476, 487, 933 P.2d 799, 805 (1997) ("the MSDS do not establish that any particular product is in a defective condition and is unreasonably dangerous"); *rson*

[558] Hr'g Tr. 425:5-17, 445:16-19, July 23, 2013 (Sporn); Hr'g Tr. 1019:21-1020:6, 1022:2-6, July 25, 2013 (Weill); Hr'g Tr. 2104:3-2105:1; 2106:24-2111:7, July 31, 2013 (Welch).

[559] Hr'g Tr. 451:19-452:4, July 23, 2013 (Sporn).

Coastal Tankships, U.S.A., Inc. v. Anderson, 87 S.W.3d 591, 618 (Tex. App.–Houston [1st Dist.], 2002, pet. denied) (Brister, J., concurring) (MSDS "provides no information about relative risk, required exposure level, or time of onset. This is not enough to prove causation."). If this were not the law, manufacturers of play sand, the MSDS for which reads "may cause cancer" (Tr. 949:3-950:20 (Henshaw)), would be liable for the cancer of every cancer patient who remembers visiting a sandbox.

184. Dr. Garabrant conceded that he is not an expert on translocation of asbestos fibers from the lung to the pleura nor is he an expert in lung fiber burden analysis.[560] Moreover, Dr. Garabrant conceded that in formulating his opinions in this case, he did not incorporate the results of any in vitro or animal experiments.[561]

RESPONSE: Dr. Garabrant is an epidemiologist and appropriately provided epidemiology evidence. Debtors presented an expert in lung fiber burden analysis to address those issues on translocatrion. As for the in vitro and animal testing, as explained above the Committee witness who sponsored the in vitro and animal experiments admitted that these studies cannot establish causation and that epidemiology is the "acid test" for determining causation. (Tr. 1894:17-20 (Brody)).

185. Dr. Garabrant acknowledges that approximately twenty studies of plumbers and pipefitters, occupations where workers use gaskets, demonstrate a five-fold risk of developing mesothelioma.[562]

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[560] Hr'g Tr. 364:8-15, July 23, 2013 (Garabrant).

[561] *Id*. at 327:20-328:25 (Garabrant).

[562] *Id*. at 293:22-294-9.

RESPONSE: As Dr. Garabrant explained, the increased risk of mesothelioma arises from the exposure to friable, amphibole-containing insulation products, not gaskets and packing. This becomes clear through the many studies failing to find increased risk among vehicle mechanics, who use gaskets and asbestos brakes, but not insulation products. (Tr. 242:19-245:1, 294:2-297:4, 245:2-11, 293:16-297:4, 295:4-297:4, 297:20-299:5 (Garabrant); Ex. GST-15786, Fig. 4).

186. Dr. Weill holds the opinion that chrysotile asbestos, the type of asbestos that comprised 95 percent of the asbestos used in the United States, is totally innocuous and incapable of causing pleural plaques, asbestosis, lung cancer or mesothelioma.[563] He maintains that the only workers exposed to chrysotile asbestos who are at risk of contracting mesothelioma are chrysotile miners.[564] Dr. Weill conceded that his position is contrary to the conclusions reached by the Canadian Medical Association, the American Public Health Association, the American Cancer Society, the World Health Organization, the National Toxicology Program, the United States Public Health Service and the World Trade Organization.[565]

RESPONSE: Dr. Weill's views on low-dose chrysotile products are consistent with what even Committee expert Dr. Brody agreed was the "consensus of the medical community," which is "that chrysotile-induced mesothelioma only occurs with very high exposures" such as occur in "mining situations." (Tr. 1901:3-1902:5 (Brody)). Dr. Weill explained that cases in the high exposure mining context are attributable to contaminants in the chrysotile ore rather than the chrysotile fibers. (Tr. 986:25-991:12, 993:14-19 (Weill)). Dr. Weill does not believe the

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[563] Hr'g Tr. 1019:21-1020:6, July 25, 2013 (Weill).

[564] *Id.* at 1022:2-6.

[565] *Id.* at 1022:8-1023:3, 1024:13-1025:15.

evidence establishes that the "pure chrysotile" fiber are causing the disease in these high exposure settings. Rather, many highly exposed chrysotile populations where disease would have occurred if chrysotile fibers are a cause simply do not exhibit increased risk of disease. (Tr. 977:8-980:19, 983:11-990:25 (Weill)). The leading example is South Africa, where all three commercial fiber types have long been mined extensively, where mesothelioma has been associated with both amosite and crocidolite mining, and where several studies have reported the absence of mesothelioma in chrysotile populations. (Tr. 989:3-25 (Weill)).

Dr. Weill did not concede his position is contrary to statements of public health officials. Rather, he explained "it's difficult to take statements such as these and make a blanket application to all kinds of chrysotile exposure." (Tr. 1022:8-1023:3, 1024:13-1025:15 (Weill)). He explained the history underlying the expression of public health concerns after early studies, and he described the protective, no-threshold models used to project hypothetical risk from exposures about which data is unavailable. (Tr. 997:11-999:16, 1022:14-23 (Weill)). Dr. Weill explained that even if, for public health purposes, one were to assume a theoretical risk from chrysotile fibers, the theoretical risk for chrysotile fibers is hundreds of times less than the risk from the much more potent amphibole fibers. (Tr. 1011:21-1012:7 (Weill)).

187. During cross-examination, Dr. Weill agreed that the use of chrysotile asbestos in animal inhalation experiments with rats caused mesothelioma.[566] Dr. Weill further conceded that in vitro studies have shown that chrysotile asbestos can produce a mutagenic event in cells and that chrysotile fibers can cause actual DNA strand breakage.[567]

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[566] ***Id.*** **at 1028:8-18.**

[567] ***Id.*** **at 1034:8-13.**

RESPONSE: The Committee presents here an incomplete and misleading finding. Dr. Weill explained that animal studies are not directly analogous to human experience because of the doses used and differences in the organism's response. (Tr. 981:25-982:6 (Weill)). This was consistent with the limited value claimed for these studies by the expert the Committee called to describe the in vitro and animal experiments. Dr. Brody admits his chrysotile opinions rely on rodent studies in which rodents receive extremely high doses of chrysotile. (Tr. 1873:2-23 (Brody)). He agrees that these results are not representative of human asbestos exposure after removing and installing a gasket. (Tr. 1874:3-7 (Brody)). Dr. Brody also relies on animal injection studies that bypass the body's defense mechanisms, using techniques that can produce mesothelioma with many substances that are not cause of mesothelioma in humans. (Tr. 1877:2-1878:9 (Brody)). Dr. Brody agreed that knowledge about mesothelioma causation is limited to the point that we do not yet know whether we are dealing with one type of tumor or with several types of tumors. (Tr. 1891:6-20 (Brody)). Science does not yet know the precise genetic errors that have to occur in order to cause mesothelioma. (Tr. 1884:15-21 (Brody)). The mutagenic effect of asbestos at low doses is still unknown. (Tr. 1885:1-1886:6 (Brody)). Dr. Brody that admitted that epidemiology is the "acid test" for determining causation. (Tr. 1894:17-20 (Brody)).

188. From a physiologic prospective, Dr. Weill agreed that only the asbestos fibers that get to the pleura are the ones that cause mesothelioma.[568] Given the shorter half-life of chrysotile asbestos in the lungs, Dr. Weill agreed that researchers have found that the predominant fiber found in the pleura is chrysotile.[569]

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[568] *Id*. at 1034:14-23.

[569] Hr'g Tr. 1036:16-1039:3, July 25, 2013 (Weill).

RESPONSE: This proposed finding is misleading. The researcher referenced is Dr. Suzuki, who focused on short chrysotile, which the vast majority of researchers believe is not pathogenic. (Tr. 434:8-20 (Sporn)). Dr. Weill explained the research by Donaldson in 2010 who explained that short chrysotile that can pass through the pleura, whereas the long amphibole fibers cannot. (Tr. 975 (Weill)). Similarly, Committee expert Dr. Brody admitted short chrysotile that Suzuki reports in the pleura are ubiquitous in municipal water systems (Tr. 1888:5-10 (Brody)), that typical autopsies are done with normal municipal water (Tr. 1890:23-1891:1 (Brody)), and that the Suzuki studies were performed on tissues harvested during typical autopsies. (Tr. 1891:2-4 (Brody)). In addition, he agreed that before these kinds of fiber burden studies in the pleura can tell us important information, we would need controlled studies to show what the fiber levels were in healthy people or unexposed people. (Tr. 1887:11-16 (Brody)).

Dr. Brody agreed that amphiboles are found in the pleura in significant quantities. (Tr. 1888:25-1889:3 (Brody)). He agreed with Debtors' expert Dr. Weill that the structure of the pleura is such that short fibers can pass through the pleura and exit through the lymphatic system. (Tr. 1889:4-9 (Brody)). Dr. Brody also agreed that long fibers have much more propensity to not be able to get out through the stoma and out of the lymphatic system. (*See* Motion, Appendix D, Weill Report references and Weill Rebuttal Report references, Donaldson 2010); (Tr. 1889:4-16 (Brody)).

189. Dr. Weill acknowledged that the issue of whether chrysotile causes mesothelioma has been the subject of a good-faith debate over the past twenty years both in the peer-reviewed literature and in the courtroom.[570] He further admitted that there are many qualified researchers who disagree with his opinions, including Dr. Richard Lemen,

[570] *Id*. at 1058:2-23.

a Ph.D. epidemiologist, who concluded that chrysotile can and does cause mesothelioma after applying the Bradford Hill causation considerations; Dr. Allen Smith, another Ph.D. epidemiologist, who opined that exposure to chrysotile is the main cause of pleural mesothelioma; researchers at Mount Sinai, one of the leading institutions investigating asbestos disease, who concluded that "clinical and epidemiologic studies have established beyond all reasonable doubt that chrysotile causes cancer of the lung, malignant mesothelioma of the pleura and peritoneum;" and Dr. Leslie Stayner, yet another Ph.D. epidemiologist, who published that both the toxicological and epidemiologic literature strongly support the view that occupational exposure to chrysotile is associated with increased risk of lung cancer and mesothelioma.[571]

RESPONSE: In the quoted testimony Dr. Weill acknowledged that plaintiffs' experts such as Dr. Smith and Dr. Lemen have stated other views in litigation, and that he did not know the intentions of other experts but was willing to assume good faith. Of course, the issue is not good faith. It is scientific reliability, under the standards appropriate for tort liability, not public health advocacy. In the Rule 104 record he has carefully explained the lack of scientific reliability to their opinions. (*See* Report and Rebuttal reports of Dr. Weill, Appendix B to Motion filed 7/3/13).

II. CONCLUSIONS OF LAW

A. *Daubert* and Other Evidentiary Issues

190. The Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions, filed July 3, 2013 [Dkt. No. 2981], is denied. The Court finds Dr. Welch,

[571] ***Id.* at 1056:7-1057:17; *accord id.* at 1048:3-1049:13, 1054:18-1055:8.**

Dr. Brody, and Dr. Brodkin qualified as experts. Although the Court has not ruled on medical issues, the Court found the testimony helpful and reliable.

RESPONSE: The challenged opinions fail for many reasons detailed in Debtors' Motion to Exclude or Strike Committee Medical Expert Witness Opinions filed 7/3/13 and corresponding brief in support. Reasons include, but are not limited to, the following: reliance on "every exposure" or "no safe level" theories of specific causation liability (*Id.* § IV(B)); basing causality conclusions in litigation on case reports (*Id.* § IV(C)), public health agency analysis (*Id.* § IV(D)), and animal studies (*Id.* § IV(I)); reliance on confounded studies (*Id.* § IV(I)); misuse of the "Bradford Hill" criteria (*Id.* § IV(F)); and improper use of the methodology for care decisions (*Id.* § IV(H)). Overriding them all is that fact that Committee experts' methodology fails to take into account the fact that virtually all likely claimants will have massive other exposures to asbestos thermal insulation and pipecovering. (Tr. 964:16-19 (Weill)). The Committee cannot deny that other exposures dominate. Instead, they are compelled to argue that other exposures are "irrelevant." Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee and FCR Estimation Witness Opinions (Docket No. 3153) at 7.

191. The Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Expert Witness Opinions, filed July 3, 2013 [Dkt. No. 2985], is denied. The Court finds Dr. Longo and Mr. Templin qualified as experts.

RESPONSE: The reasons the motion should be granted have been briefed extensively and will not be thoroughly rehashed here. *See* Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Expert Witness Opinions (Docket No. 2985); Debtors' Brief in Support of Its Motion to Strike Committee Industrial Hygiene Witness Opinions (Docket No. 2986), and

Debtors' Reply to the Response and Opposition of the Official Committee of Asbestos Personal Injury Claimants to Debtors' Motion to Exclude or Strike Committee Industrial Hygiene Witness Opinions (Docket No. 3210).

192. The Debtors' Motion to Exclude or Strike Committee and FCR Estimation Expert Witness Opinions, filed July 3, 2013 [Dkt. No. 2985], is denied. The Court finds Dr. Peterson and Dr. Rabinovitz qualified as experts.

RESPONSE: This conclusion is contrary to law. Federal Rule of Evidence 702 provides that "[a] witness who is qualified as an expert" may testify only if:

> "(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
>
> (b) the testimony is based on sufficient facts or data;
>
> (c) the testimony is the product of reliable principles and methods; and
>
> (d) the expert has reliably applied the principles and methods to the facts of the case."

Debtors established at trial that Drs. Rabinovitz and Peterson did not meet these conditions, for reasons stated more fully in their Motion and the post-trial briefing. Drs. Rabinovitz and Peterson did not provide a connection between their opinions about settlements and the matter at issue in this case (allowed claims). Moreover, they did not reliably predict settlements. They used Garlock's most recent settlements to project future liability, without any scientific basis and without any quantification of the uncertainty in their forecasts. Finally, they did not reliably apply their methods to the facts of this case, among other things ignoring highly relevant discovery concerning pending mesothelioma claims; applying inflated settlement averages to pending claims; applying a spurious propensity to sue trend (in the case of Dr. Peterson); and applying inconsistent inflation and nominal risk-free rates.

193. The exhibits and deposition designations submitted by the Committee and FCR are hereby admitted.

194. All standing objections raised by Garlock or Coltec at the hearing have been, or are now, denied.

B. Legal Framework of Estimate

195. The goal of this estimation proceeding is "a reliable and reasonable estimate of the aggregate amount of money that Garlock will require to satisfy present and future mesothelioma claims."[572] Consistent with fundamental bankruptcy principles, the Court must determine what it would cost Garlock to resolve present and future asbestos claims if they were not in bankruptcy.[573]

RESPONSE: This conclusion misstates the Court's Estimation Order, where the Court declined to hold, contrary to the Committee and FCR's argument, that the Court's task is to "determine what it would cost Garlock to resolve present and future asbestos claims if they were not in bankruptcy." The Committee cites for this proposition cases that the Court expressly distinguished in its Estimation Order as cases where the debtor and asbestos claimants settled before the estimation and the estimation was conducted "for purposes other than allowance." *See* Estimation Order ¶ 6 (recognizing that estimations in *Owens Corning*, *Armstrong*, and *Federal-Mogul* cases were "for purposes other than allowance," and "[i]n each of these cases the debtor and personal injury claimants had reached an agreement on the asbestos liability and the dispute was with another creditor"); *id.* ¶ 15 (noting same, and also citing *Eagle Picher* case).

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[572] Est. Order ¶ 10.

[573] *See Owens Corning v. Credit Suisse First Boston*, 322 B.R. 719, 722 (D. Del. 2005) ("claims are to be appraised on the basis of what would have been a fair resolution of the claims in the absence of bankruptcy"); *In re Federal-Mogul Global, Inc.*, 330 B.R. 133, 158 (Bankr. D. Del. 2005) (object is to determine "what a claim would have been worth but for the bankruptcy").

196. As previously set forth in its Estimation Order, this estimation "for allowance purposes pursuant to section 502(c)."[574] However, that purpose is qualified in that the Court "does not expect to 'allow' any individual or group of claims. Rather, it proposes to estimate the aggregate amount necessary to satisfy present and future claims that may be allowed at some later point in the case."[575]

197. This qualification preserves the rights of claimants and recognizes the jurisdictional limitations of the Court. To conduct allowance proceedings for purposes of distribution would implicate individual claimants' due process rights. A bankruptcy court is precluded from liquidating or estimating contingent or unliquidated personal injury or wrongful death claims against the estate for purposes of distribution.[576] However, "an estimation of asbestos liability for the limited purposes of plan formulation is a fruitful endeavor because it promotes the speed and efficiency goals of the Bankruptcy Code, while not implicating the procedural rights of the individual claimants."[577]

RESPONSE: As Debtors showed the Court in 2012, the jurisdictional limitations on this Court do not change the nature of an estimation for purposes of plan formulation and confirmation. As the Court held in its Estimation Order, many courts have entertained merits-based estimations of asbestos claims, rejecting claims by claimant committees that such an estimation violates due process or claimants' jury trial rights. *See* Estimation Order ¶ 17 (citing *USG*, *W.R. Grace*, and *G-I Holdings* cases). Furthermore, the Fourth Circuit has held that the bankruptcy court can estimate personal injury claims for the purpose of formulating a plan of

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[574] Est. Order ¶ 9.

[575] *Id.* ¶ 11.

[576] 28 U.S.C. § 157(b)(2)(B), (b)(5). *See also* 28 U.S.C. § 1411(a) (preserving in bankruptcy claimants' right to jury trial of personal injury tort and wrongful death claims).

[577] *Federal-Mogul*, 330 B.R. at 154-55.

reorganization without running afoul of the jurisdictional limitations in section 157. *A.H. Robins Co. v. Piccinin*, 788 F.2d 994, 1013-14 (4th Cir. 1986). Simply put, estimation for allowance is estimation for allowance, and must ultimately focus on the merits of claims under state law, not the cost of settling claims in the tort system.

The Committee is also oblivious to the fact that Garlock has due process rights, which must also be respected before claims can be allowed. Garlock too would be entitled to trials before claims could be finally allowed. The purpose of estimation is to forecast the results of these trials so that the parties can formulate and confirm a fair plan of reorganization that avoids them. *See Piccinin*, 788 F.2d 994 at 1013-14.

198. The estimation cannot be an exact determination of present or future liability. "[A]n estimation by definition, is an approximation."[578]

199. The evidence is unrebutted that the method Garlock used to resolve mesothelioma claims in that system was not trial, but rather settlement of those claims supported by a diagnosis of mesothelioma and evidence that the claimants worked with or around Garlock's asbestos-containing products. By such settlements, Garlock converted disputed, unliquidated tort claims into consensual obligations to pay agreed sums of money.

200. If Garlock remained in the tort system, it would continue to resolve mesothelioma claims in this manner. Garlock has provided no evidence that would enable the Court to predict that Garlock's future in that system would be materially different from its historical experience in the latter half of the decade of the 2000s.

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[578] *Federal-Mogul*, 330 B.R. at 155. Especially where valuation requires "a prediction as to what will occur in the future, an estimate, as distinguished from mathematical certitude, is all that can be made." *Consol. Rock Prods. Co. v. Du Bois*, 312 U.S. 510, 526 (1941). *See also Owens Corning*, 322 B.R. at 725 ("mathematical precision cannot be achieved").

201. Garlock's attempt to discredit its claim resolution history as a proper foundation for aggregate estimation is not persuasive. The Court accepts that Garlock's claims data and settlement data, as interpreted by experts in light of Garlock's claims management practices, provides a reasonable basis for aggregate estimation.

RESPONSE: This conclusion of law reverses the burden of proof. The Court's Estimation Order placed the burden on the Committee and FCR to show that Garlock's settlements were a proxy for the merits of claims. This the Committee and FCR did not even attempt to do, even in the face of Garlock's largely unrebutted evidence that its settlements were driven by defense costs, as well as non-disclosure of material exposure evidence.

Moreover, even if the Court's task were to predict future settlements, Drs. Peterson and Rabinovitz failed to prove that Garlock's recent settlement history is the appropriate measure of future settlements. To the contrary, those settlements were in Mr. Magee's words "steroids era" settlements inflated by the Bankruptcy Wave and its effects, discussed in detail above and at trial.

Dr. Bates showed scientifically how Garlock's settlements would have varied had it remained in the tort system, contrary to Proposed Conclusion of Law #200. Unlike Drs. Rabinovitz and Peterson, he showed why Garlock's settlements varied in the past, and how they would have varied as Trust claims and tort claims were resolved at the same time in the future, resulting in a decrease in Garlock's costs and trial risk. Drs. Peterson and Rabinovitz presented no such model, and provided no quantification of the factors that caused Garlock's settlements to vary in the past or would cause them to vary in the future. It is their projections that provide no basis for an estimate in this case.

202. In estimating liabilities where the interests of equity holders are pitted against those of creditors, the limitations on the accuracy of estimation imply that the Court should be conservative, that is, that doubts should be resolved in favor of the creditors because their rights are superior and they are entitled to be paid in full before equity may retain any interest. Congress enacted the Absolute Priority Rule in 11 U.S.C. § 1129(b) to meet "the danger inherent in any reorganization plan proposed by a debtor, then and now, that the plan will simply turn out to be too good a deal for the debtor's owners," and to ensure that debtors and insiders cannot "use the reorganization process to gain an unfair advantage."[579]

RESPONSE: To the extent this principle has weight, Dr. Bates presented just such a conservative forecast. He assumed (contrary to fact) that any claimant who alleges contact with Garlock asbestos-containing products would be entitled to a trial, and that such a claimant would be entitled to present his causation evidence at that trial. He assigned liability shares only to those companies where claimants identified exposure through discovery in this case, not all their actual exposures. He assigned equal liability shares in his several liability calculation, despite the fact that other companies' products were indisputably more dangerous than Garlock's. He used a likelihood of success derived from Garlock's verdict history, when Garlock's settlement history shows that the average claimant had a much lower likelihood of success. And he assumed that an extremely high percentage of future incidence would allege contact with Garlock products. The Court can therefore have full confidence that Dr. Bates's estimate is an upper bound on the allowed amount of claims.

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[579] ***Bank of Am. Nat'l Trust & Sav. Ass'n v. 203 N. LaSalle St. P'ship*, 526 U.S. 434, 444 (1999).**

C. Estimate of Aggregate Liability for Mesothelioma Claims

203. The methods applied by Dr. Peterson and Dr. Rabinovitz to produce estimates have previously been adopted by a number of courts estimating liability for asbestos claims.[580]

204. The Court finds the methods used by Dr. Peterson and Dr. Rabinovitz to be reliable and appropriate for this estimation.

RESPONSE: As explained above, their methods have never been used in a case where the debtor disputed its liability and objected to the use of settlements at an estimation of allowed claims. This should not be the first case, especially when they did not even attempt to carry their burden of proving that settlements are an appropriate proxy for allowed claims.

205. The parties agree that 2.5 percent per annum is a reasonable inflation assumption for forecasting the value of future claims, and the Court so finds. The discount rates used by Dr. Peterson and Dr. Rabinovitz are "risk-free" rates as required by applicable precedent.[581] Mesothelioma claimants are not investors who should be deemed to accept risk in order to gain a higher return.[582] The task at hand, moreover, is to measure the aggregate value of payments to be made on allowable claims, taking into account the time value of money. The discount rates used by Dr. Peterson and Dr. Rabinovitz are substantially consistent with the discount rate used in the *Bondex* case. There, a risk free rate of 3.45 percent was used to discount future liabilities back to

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[580] *See In re Specialty Prods. Holding Corp.*, 2013 WL 2177694, at *23 (Bankr. D. Del. May 20, 2013) ("*Bondex*"); *In re Armstrong World Indus., Inc.*, 348 B.R. 111 (D. Del. 2006); *In re Federal-Mogul Global Inc.*, 330 B.R. 133, 133-34 (D. Del. 2005); *Owens Corning*, 322 B.R. at 725; *In re Eagle-Picher Indus., Inc.*, 189 B.R. 681, 686-87 (Bankr. S.D. Ohio 1995).

[581] *Jones & Laughlin Steel Corp. v. Pfeifer*, 462 U.S. 523, 537-38 (1983) (quoting *Chesapeake & Ohio R. Co. v. Kelly*, 241 U.S. 485, 491 (1916)).

[582] McGraw Report at 4-5.

Bondex's petition date of May 31, 2010, within two weeks of the equivalent date in this case.[583]

RESPONSE: The findings of fact in the *Bondex* case have no res judicata or collateral estoppel effect here. The evidence in this trial showed, for the reasons discussed in response to Proposed Finding of Fact #16, that Drs. Rabinovitz and Peterson used mismatched inflation and nominal risk-free rates, resulting in their estimates being overstated by 18% and 17% respectively.

206. The Court finds Dr. Bates' principal method to be unhelpful here because, first, it estimates Garlock's liability under conditions that do not correspond to the current tort system. In addition, the assumptions built into Dr. Bates methodology, such as the number of shares that a verdict would be divided into and the rate at which plaintiffs would win trials are not adequately tied to Garlock's experience in the tort system.

RESPONSE: Dr. Bates was the only expert who estimated the factors relevant to allowed claims. He derived those facts from a database that incorporated all discovery ordered in this case. He performed his calculations using standard econometric methods, and reported his confidence intervals. He applied conservative assumptions that ensured his estimate is an upper bound. It is the only legally viable estimate in this case.

207. Dr. Bates' secondary method, in which he estimates Garlock's liability under the bankruptcy plan it proposed in late 2011, is premature and inappropriate. First, the plan itself may be unconfirmable as a matter of law.[584] **Setting that possibility aside, how**

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[583] ***Bondex*, 2013 WL 2177694, at *25.**

[584] **For example, the Committee filed objections to the disclosure statement arguing that the plan is unconfirmable for a variety of reasons. Objection of the Official Committee of Asbestos Personal Injury Claimants to the Debtors' Proposed Disclosure Statement, filed**

the asbestos creditors' entitlements may be adjusted under a plan of reorganization is an issue that has not yet been presented. To take into account Garlock's bankruptcy in estimation now would introduce a premature discount of the claims. As a general matter, the fact of bankruptcy cannot be used to reduce the value of the claims faced by the debtor on the petition date.[585] Consistent with that principle, in estimating asbestos claims, the law is clear that the Court is to measure the aggregate amount of the claims in the tort system, not "the value which claimants might take in satisfaction of their claims through some bankruptcy mechanism such as a trust of the sort provided for at § 524(g)."[586]

RESPONSE: The Court expressed its intention to estimate allowed claims and should therefore adopt Dr. Bates's estimate of Garlock's legal liability. But the Committee and FCR have asked the Court to determine the cost of resolving claims. If the Court makes such a finding, the only relevant finding at this stage would be the cost of resolving claims under Debtors' plan, the only means proposed for resolving claims in this bankruptcy case. Only Dr. Bates opined on that issue, and his testimony was unrebutted.

208. Dr. Bates' and Dr. Gallardo-García's criticisms of the methodologies and estimates put forward by Dr. Rabinovitz and Dr. Peterson are not persuasive.

RESPONSE: As discussed above, Dr. Bates's and Dr. Gallardo-Garcia's criticisms of how Dr. Rabinovitz and Dr. Peterson applied their methodologies were essentially unrebutted. Moreover, Drs. Rabinovitz and Peterson had no answer for Dr. Bates's fundamental criticism of

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January 19, 2012 [Dkt. No. 1808]. The Court has not yet ruled on those objections, but finds that they raise important issues.

[585] For example, in a bankruptcy solvency analysis, a company's bonds must be valued at the face amount of the obligations, not discounted because of the debtor's financial distress and descent into bankruptcy. *In re Trans World Airlines, Inc.*, 134 F.3d 188, 196-97 (3d Cir. 1998).

[586] *Eagle-Picher*, 189 B.R. at 683.

their estimates, which was that they conflated settlements with Garlock's legal liability, contrary to the Posner model and the facts of record in this case.

D. Medical and Science Issues

209. Whether the foreseeable use of Garlock gaskets generated appreciable dust and whether that dust is capable of causing mesothelioma are factual questions for a jury to resolve, not matters to be decided as a matter of law by this Court.[587]

RESPONSE: Although the Court is not making final determinations in individual cases it is most definitely estimating the number of cases likely to merit a jury trial, the likelihood that the claimant will succeed in obtaining a favorable verdict, and the likely range of that verdict. The Committee would have the Court "indulge in a fiction that each and every exposure to asbestos, no matter how minimal in relation to other exposures, implicates a fact issue." *Betz v. Pneumo Abex, LLC*, 44 A.3d 27, 56-57 (Pa. 2012). Based on that erroneous assumption, the Committee urges that every claim alleging any kind of exposure would result in trial and a favorable verdict. The reality is that estimation of true liability cannot be based on such a theory. The Committee has failed in its burden to demonstrate any viable claims against Garlock when its true legal liability is assessed.

210. The Court does not need to make determinations on these issues.

RESPONSE: First, Debtors dispute that legal liability exist. The Committee had the burden to prove viable claims actually exist. The Court cannot assume liability, nor can it estimate in a vacuum. Even if the Court assumes some hypothetically viable claims might exist, these science issues must be addressed to determine the likely extent of the liability. Moreover, Debtors have filed *Daubert* motions. When a party raises a *Daubert* challenge to an expert's

[587] Hr'g Tr. 1239:13-1241:9, July 26, 2013 (Brickman); Hr'g Tr. 1058:19-23, July 25, 2013 (Weill).

opinions, Rule 104(a) requires the trial court to make an admissibility determination. *Kumho Tire*, 526 U.S. at 149 ("[W]here [expert] testimony's factual basis, data, principles, methods, or their application are called sufficiently into question . . . the trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of the relevant discipline."). S*ee, e.g.*, *Barbain v. Asten Johnson, Inc.*, 700 F.3d 428, 432-33 (9th Cir. 2012), *reh'g en banc granted*, 710 F.3d 1074 (9th Cir. 2013) (finding that district court committed reversible error by neither holding a *Daubert* hearing nor "making any gateway determinations regarding relevance and reliability").

211. The strengths and weaknesses of the medical and science defenses are already priced into historical settlement values, and no further adjustments to the estimation to account for those defenses are necessary.[588]

RESPONSE: The Committee presents no evidence—and there is in fact no evidence—to support this conclusion. For all the reasons described above, Garlock's settlements are not a measure of its liability for claims or the merits of claims.

E. Conclusion

212. The Court finds the estimate of Dr. Peterson the most persuasive and therefore estimates the pending and future mesothelioma claims against Garlock, in the aggregate, at $1.265 billion in net present value.

[588] ***See Federal-Mogul*, 330 B.R. at 161-62.**

This 26th day of November, 2013.

Respectfully submitted,

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